The Promotion of Continence:
Implementing clinical guidelines for community nurses

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I’m no shipbuilder, Agnar, but I can tell you that there’s never been a winter, and a spring too, when I worked so hard. There was a period when it just seemed to be chaos. As I say, you have an outline, you imagine a ship, and it seems quite possible. But then you try to bring all the pieces together, and there’s a long time when there seems to be far too much of everything, and you can’t believe it will ever all come together. It’s like working with too many threads in your hand at once, and your mind cannot make any order out of them. You just have to look at one bit at a time, and stop imagining the whole, or you’d be too discouraged to go on. You’d be seeing all the time how much there is to be done. The whole is too much to remember, and so you do a little of one thread, and then it reminds you of something else, and after that you cannot make sense of the first bit without the next until you’ve finished the first: so you get the rope for a block, for example, but you don’t know the thickness you need because the block isn’t made, and you can’t carve the block until you’re sure of the thickness of the rope. It all gets so complicated you can’t think of anything else, and you dream about it at night, and you think you’ll manage as long as nothing else happens, and as soon as you think that, there’s another disaster, another tree trunk that won’t split along the grain, another length of rope that isn’t long enough…

Anyway, by the time the pack ice melted, we had the rudder in place, and the mast stepped, and the planking laid inside the ship. We launched her on a fine spring day, and when she slid into the sea she lay neatly, low in the water, looking surprisingly small after all the effort that had gone into her. I watched them hoist the sail and slowly slip out to sea. It was only when I watched her out at sea, riding the waves as if that’s what she’d been born to do, that I really believed in her. As soon as she was in the sea she was something more than the thing we had made. She was a ship, a ship can go anywhere; it can take men wherever they choose, out of one world, if they like, and into another. Somehow, right until that moment, I hadn’t thought of us as shipbuilders. We had the expertise; we had the persistence: after all, our lives depended on doing the job properly. But as well as those two things you need something else-luck. And the fates were kind to us. Don’t get me wrong, you can’t rely on them if you don’t work for yourself as well. They may never favour you, all your life long, but if you are one of the lucky ones, sometimes you’ll seize a chance, and find them with you all the way. Our ship stood her sea trials well. We made our last preparations, took our cattle to the already loaded ships and sailed home with the richest cargo anyone ever brought out of the wilderness that lies beyond the world.

Margaret Elphinstone 2000 (The Sea Road: a novel about the life of Gudrid of Iceland, who travelled to the New World (Vinland) during the Viking Age.)
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Abstract

Quality initiatives such as clinical guidelines can improve knowledge and support nurses in providing effective assessment and treatment of patients. However, managed change in the effective development, dissemination and implementation of guidelines is complex and involves many educational and organisational issues requiring strong leadership, resource provision and cohesive organisational aims.

This study was designed to implement and evaluate the impact of evidence-based guidelines for the promotion of continence in primary care and to examine the place of guidelines within a clinical governance agenda. It was one part of a multi-centre project The South Thames Evidence-based Practice project (STEP) that aimed to compare similar studies in a variety of clinical settings. This study employed the principles of action research with a quasi-experimental design in which the practice, role, knowledge and attitudes of community nurses (n=244) in the promotion of continence for elderly people in the community was examined before, during and after the development and implementation of clinical guidelines. Guidelines were developed and introduced into an implementation group (n=140), supported by educational interventions and comparisons made with a control group (n=104) within the same community Trust. Quantative and qualitative data was collected using a range of methods and triangulation of data sources: nurse questionnaire (n=244); interviews (n=29), document survey (n=41/109); and focus groups (n=29).

At the outset, the community nurses operated within a system structured primarily towards palliative management of continence problems, which was frustrating for
those who had skill in more proactive care. Most had not received comprehensive
training in continence care; felt that they did not have adequate knowledge to care for
people effectively; demonstrated a limited knowledge base; and many held
assumptions about the inability of elderly patients to be successfully treated.
Documented continence assessments were incomplete. Nevertheless it was accepted
that district nurses held the key role in continence care within primary care and were
committed to developing their practice. Following educational support and
implementation of guidelines, 68% of nurses in the implementation group were
influenced to change their practice. Statistically significant improvements occurred
in the implementation group compared to the control group in documentation of
continence assessments; knowledge about causes, assessment and treatment; and in
attitude towards equitable opportunities for care for elderly people. Differences
between groups could be attributed to the interventions employed.

Although changes in clinical practice resulting from the study affected a relatively
small group of patients initially, the framework for sustained improvement was
established and their value were acknowledged at all levels of the organisation; and
the role of nurses in proactive promotion of continence as well as the management of
incontinence was recognised.

This study has demonstrated that district nurses are well-placed to perform
assessments and conservative treatment of continence problems in older people, but
that their capacity to perform this role may be limited by individual and
organisational factors.
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Chapter One

Introduction to the Study

1.1 Background to the study

The setting for the study was the nursing workforce of one community trust in the South of England. The Trust, in collaboration with the local university had successfully bid for research funding from the Regional Health Authority. The purpose of this study was to implement and evaluate evidence-based practice for the promotion of continence among elderly people cared for by community nurses, through the development and use of clinical guidelines. This study aimed to apply general health policy and actively develop effective evidence-based practice among frontline staff in a large NHS organisation, utilising a range of strategies.

The study took place between January 1998-March 2000 and was one part of a large, multi-centre project, the South Thames Evidence-based Practice project, known as STEP (Ross and McLaren 2000, Bignell et al 2000). The broad aim of the STEP project was to implement and evaluate evidence-based practice using a similar multi-faceted approach across nine geographically distinct clinical specialities in service settings within the former South Thames Region. This provided a strong framework for the research design of the specific study, which is the subject of this thesis. An independent evaluation of the process and outcomes within and across all project settings was conducted by Redfern et al (2000). This evaluative process attempted to identify common components of strategies that resulted in effective changes in clinical practice.

*The impetus for STEP was provided by the need articulated within the NHS quality improvement agenda to identify effective methods of implementing*
evidence of proven benefit to patients, so closing the perceived gap between research and practice.

(McLaren et al 2002 page 445)

The Regional Executive provided the project funding and each of the nine studies was steered by a team comprising academic advisors and Trust representatives. The conceptual framework used to both develop and interpret the study aims and outcomes was clinical governance, which is described as:-

“a system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish”

A First Class Service DoH 1998a p33

The concept of clinical governance informs a health policy agenda that brings together, with coherence and authority, all major initiatives that have aimed to address improvement in the quality of healthcare in the UK (DoH 1996a, 1996b, 1998a, 1999, 2000b, Hamer 2000). It encompasses the use of valid clinical evidence, continuous quality improvement and accountability and focuses in particular upon support for ways to enhance active dissemination and implementation of effective healthcare practices, especially by the use of clinical guidelines (DoH 1996a, 2000b). More recent policy developments arising from the NHS Plan (DoH 2000b) as part of a Modernisation Agenda focus upon organisational structure, patient involvement, the supervision and support of healthcare professionals and their role development (DoH 2002a, 2002b, 2004).

The study presented in this thesis arose in response to concerns that older people in the community with continence problems were commonly assessed and cared for by community nurses who had limited specialist knowledge in this field. It had been
recognised by a number of writers that continence services in primary care are an area of practice in which technical quality could achieve greater consistency by the implementation of evidence-based guidelines (DoH 1991, 2000a, 2001, AHCPR 1992, Royal College of Physicians (RCP) 1995, Button et al 1998). Urinary incontinence (UI) is a common disabling problem among adults living in the community. The nature of UI can be complex and may frequently go unreported (RCP 1995, AHCPR 1992, Button et al 1998, Continence Foundation 2002). A range of treatments are effective in restoring continence or substantially reducing symptoms with consequences for improving the quality of life for the patients. Many of these are suitable for delivery within primary health care (Burgio and Goode 1997, Seim et al 1998, AHCPR 1996, Button et al 1998). However, inadequate service provision and practice have been identified for elderly patients; failing to identify sufferers, or to offer assessment and treatment; and commonly focussing upon palliative management and containment through the provision of containment aids (Roe et al 1996, Audit Commission 1999, DoH 2000a).

A number of sources of clinical guidelines for continence care exist and have continued to be developed for specific patient groups. Those available at the outset of this study included general guides (AHCPR 1992, RCP 1995) and specific guidelines prepared for use within primary care (Button et al 1998). Greater acceptance and application into practice settings would be of great benefit for patients and continence service delivery; addressing the issue of escalating cost of continence services by changing the focus from the use of continence products to using systematic effective strategies to improve symptoms of UI (Button et al 1998). Since completion of the data collection phase of the study, additional guidance has been published (DoH 2000a, 2001) and a number of specific aspects have been addressed.
through the National Institute of Clinical Excellence (NICE) (DoH 2001 2002a) and Cochrane Reviews (Roe et al 2003). However, one of the drawbacks of such reviews is their tendency to focus upon randomised control trials (RCTs) and there is a strong argument to be made whether this methodology is appropriate for continence care in elderly community populations. This issue is returned to later.

Community nurses are well-placed to provide a key role in the identification, assessment, treatment and management of UI among patients in the community (Pearson et al 1995, Roe et al 1996, Audit Commission 1999). Continence services are provided by health trusts through community nursing services and specialist support from continence advisory services. District nurses in particular, visit elderly people who are vulnerable to UI and continence care forms a major part of their work. Successful patient outcomes have been achieved from planned strategies for nurse treatment within primary care (O’Brien et al 1991, O’Brien and Long 1995, Seim et al 1998, Williams et al 2000). However, concerns have been raised that existing levels of knowledge, education and training are frequently inadequate to support such a role (Cheater 1990, Palmer 1995, Abbott and Hotchkiss 2001).

Guidelines can be used to offer authoritative and explicit advice for professionals. Their implementation and use are educative (Thomas et al 1998), however, changing professional behaviour and attitudes is more complex than the simple provision of guidelines (Muir Gray 1997, Hurwitz 1998), requiring the active management of change and consideration of both individual practitioners and health care organisations (NHSCRD 1994, 1999, McLaren et al 2002). Leadership, planning, negotiation and collaboration with stakeholder healthcare professionals and the provision of adequate infrastructures are essential ingredients to support research.
Multi-faceted implementation strategies have been shown to support change in medical practice, based upon theories of learning and behavioural change (NHSCRD 1994, 1999), but present inconclusive applications to nursing and other healthcare professions (Thomas et al 1998). In particular, relatively little is known about changing nursing practice in general (McLaren and Ross 2000) and community nursing in particular, since it is less commonly the subject of research (Luker and Kendrick 1995, Audit Commission 1999). This suggests a need for further research on the implementation of effective strategies designed to change nursing practice in community settings, to promote greater understanding of this complex issue. The study presented here aimed to contribute to such understanding.

1.2 Research Design

This study was designed to develop and implement clinical guidelines for continence assessment and treatment and to evaluate their use among community nurses within one community health trust. This encompassed critical examination of the practice, role, knowledge and attitudes of the community nurses before, during and after the development and implementation of clinical guidelines, supported by a variety of educational interventions, in order to answer the following research questions:

- Are community nurses able to provide a key role in the promotion of continence for elderly people in primary care?
- Can the development and introduction of clinical guidelines positively affect the practice, role, attitudes and knowledge of community nurses in the care of elderly people in the promotion of continence?
A quasi-experimental design was dictated by the main STEP project protocol and was employed to compare outcome measures among the nurses before and after the intervention (implementation of guidelines with educational interventions). The study setting was a community trust in the south of England serving a population of 470,000, administered as four distinct geographical localities; these localities provided the study with an implementation and control group. In each group a predominantly urban and a predominantly rural locality were represented and they were also matched as closely as possible for populations of elderly people. The implementation group comprised all the community nurses in two of the four geographical localities within the Trust. The nurses in the remaining two localities formed the control group. The control group did not receive guidelines until the last two months of the study (without educational interventions); following completion of data collection through a nurse questionnaire to examine role, knowledge and attitudes. A document survey comparing use by the implementation and control groups of the new guidelines over two months was then carried out (see Chapter Three Figure 3.1).

The Objectives of the Study:

- To determine and critically examine the practice, role, knowledge and attitudes of district nurses, health visitors, nurse visitors for the elderly and RGNs working in the community in relation to the care of patients with continence problems before and after the introduction of clinical guidelines on the promotion of continence.

- To develop clinical guidelines for the promotion of continence and introduce them to two of the four localities in the Trust, which formed the implementation group.
To examine documented practice in continence care before and after guideline introduction.

To compare outcome measures and other changes in the promotion of continence between the implementation group and the control group.

The methodological approach for this study was required to be consistent with all other studies of the STEP project and therefore there was limited flexibility in the study design. The overall design was to use an audit framework, comprising three phases: Phase One: situational analysis, Phase Two: intervention and Phase Three: evaluation. Important features and principles of action research methodology informed STEP and were incorporated into the overall design. Firstly, the active role of the researcher in the facilitation and leadership of the studies and secondly, how a cycle of activities during each study phase informed and shaped the next phase. Some activities inevitably overlap. (McLaren and Ross 2000). In recognition of the complexity of change management and the evolution of the change process over time, an action research approach was adopted for this study, to assist the capture of important components of implementation of guidelines. In order to achieve its goals, the active management of change became the dominant feature of this study; therefore it is presented as a quasi-experimental design using action research principles. The style resembles typologies called technical action research (Carr and Kemmis 1986) and experimental-organisational (Hart and Bond 1995).

The principle aim of action research was for practice improvement to occur through involvement of participants at each step of the research process; the role of researcher is recognised as important in the process to achieve this. Potential improvement was examined in three areas: in actual practice, in understanding of the
practice; and in improvement of the situation in which practice takes place. Triangulation of data from different sources was employed to enhance the robustness of conclusions drawn from analysis of the data.

1.3 Summary of chapters

A brief summary of each chapter in the thesis is now presented. Following this introduction, Chapter Two presents a number of literature reviews which examine the evidence-base for the promotion of continence in relation to community services and the role played by community nurses and other health professionals in the care of elderly people. The topic is located within the clinical governance agenda that has arisen out of the need for more effective and efficient healthcare practice. Clinical governance is discussed, focusing on development and implementation of clinical guidelines and the contexts and strategies involved in managing successful change in healthcare practice to improve patient outcomes.

Chapter Three describes the research aims, design and theoretical underpinnings for the study. The research aims were to implement and evaluate evidence-based practice development for the promotion of continence among community nurses. The quasi-experimental action research design took place in three overlapping phases, using triangulation of data collection methods and sources. The study compared knowledge, practice, role and attitudes among community nurses before and after educational interventions and the implementation of clinical guidelines offered at Phase Two to an implementation group, and between an implementation group and a control group.
Chapters Four, Five Six and Seven present the stages comprising Phase One of the study (Situational Analysis). Chapter Four presents the Enquiry and Method Stages of Phase One, including the establishment of the researcher’s role, analysis of the organisational context, methods used for the study and their analysis. Chapter Five presents part one of the Results Stage of Phase One, and reports quantitative findings from nurse questionnaires and the document survey. Chapter Six presents part two of the Results Stage of Phase One of the study and reports the qualitative findings from nurse interviews and focus groups. In Chapter Seven, all findings from Phase One of the study are discussed, along with information about the organisational context, and how this information was utilised to plan activities during Phase Two of the study.

The conduct, components and evaluation of Phase Two are presented in Chapter Eight. These involve a series of educational interventions among community nurses in the implementation group. Chapter Nine reports the results from Phase Three, the Evaluation Phase of the study, involving a repeat nurse questionnaire and document survey from across both implementation and control groups. Chapter Ten discusses the findings concerning nurse knowledge, practice, role and attitudes from Phase Three in relation to those at Phase One and in relation to literature for the promotion of continence and issues of clinical governance. Finally, Chapter Eleven draws conclusions from the study findings and the process of managing change in clinical practice settings. It suggests the implications of the study for community nursing practice and future research developments. The study contributes to understanding of how community nurses can be encouraged to develop and maintain evidence-based practice in the promotion of continence.
Chapter Two

Literature Reviews: Providing effective care for the promotion of continence in the community, the role of clinical governance and the management of change.

2.1 Introduction

This chapter presents a number of literature reviews, which examine the evidence-base for the promotion of continence in relation to community services and the role played by community nurses and other health professionals in the care of elderly people. The topic is located within the clinical governance agenda that has arisen out of the need for more effective and efficient healthcare practice. Clinical governance is discussed, focusing on development and implementation of clinical guidelines and the contexts and strategies involved in managing successful change in healthcare practice to improve patient outcomes.

A literature review was performed in the field of practice: the promotion of continence; assessing the evidence for effective treatment and management strategies for the promotion of continence; in examination of components of clinical governance: quality of care, how health policy is implemented using clinical guidelines; and in the examination of active change management.

The search strategy interrogated electronic databases covering the years 1990-2004 using Medline, CINAHL, the British Nursing Bibliography and The Cochrane Collaboration using key words: CLINICAL GOVERNANCE, QUALITY ASSURANCE, CLINICAL GUIDELINES, RESEARCH DISSEMINATION/IMPLEMENTATION, ACTION LEARNING, ACTION RESEARCH, CONTINENCE, URINARY INCONTINENCE, COMMUNITY NURSING, DISTRICT NURSING, HEALTH VISITORS, CONTINENCE.
ADVISER, CONTINENCE NURSE, LINK NURSE. Hand and on-line searches of the Journal of Urology and the Journal of Advanced Nursing were also included. Further references were obtained from textbooks and grey literature including unpublished theses.

The reviews identified the following literature:

- Literature concerning the quality and range of research evidence available for the promotion of continence in clinical practice within community settings, which informed the development of local guidelines for practice. Criteria were identified with which to compare the roles and practice of nurses participating in the study.

- Literature about efficiency and effectiveness of existing standards of clinical practice in general and for the promotion of continence in particular.

- Literature that examined ways to promote the development of clinical practice through the active management of change using dissemination and implementation strategies, especially clinical guidelines. This encompassed effective development of practice within NHS organisations at several levels of the individual, teams and the whole organisation. Of particular relevance were quality assurance and action learning models that were seen as integral to the clinical governance agenda and subsequently influenced the research design and interpretation of the study.
Defining the field of practice: promotion of continence

“Urinary incontinence is the complaint of any involuntary leakage of urine”. (Abrams et al 2002, International Continence Society). Urinary incontinence (UI) is a common disabling problem among adults living in the community. The lowest prevalence rate of UI in the UK adult population is 1:20, or three million people, similar to European and North American figures (AHCPR 1996, Button et al 1998, Perry et al 2000, Milsom et al 2001). Key UK epidemiological studies have indicated that between 2-15 % of men are regularly affected by UI, but it is more common among women (4-21%). Prevalence rates and severity of symptoms of UI rise progressively with age and the experience of regular UI is associated with lower health status. In people over 65 years regular incontinence (twice or more a month) becomes more prevalent (7-22%) and Thomas et al (1980), and Perry et al (2000) reported further increases after 75 years in women; figures for elderly people in residential and nursing homes have been reported as high as 25- 50% (Thomas et al 1980, Brocklehurst 1993, RCP 1995, Perry et al 2000, Roe and Doll 2000). UI is therefore a significant problem, especially when associated lower urinary tract symptoms (frequency, urgency, nocturia) are also taken into account (see prevalence data in Appendix A). Such apparently high rates of UI in the population are nevertheless thought to be an underestimation of the problem.

Although UI itself does not contribute to or predict mortality it profoundly affects the quality of life of sufferers. The majority of sufferers report negative effects; personal and social costs that can have devastating effects upon the quality of their lives in terms of mental well-being, social activity and family life (Brocklehurst
Financial costs for individuals and in the provision of continence services are high and existing costs of continence services are escalating. Costs to the NHS for absorbent products alone have been estimated at £120 million (Audit Commission 1999). Total costs for all appliances are unknown, but those countries that have made estimates suggest they comprise 2% of the total health budget. That is equivalent to £1.26 billion in the UK (Continence Foundation 2000). The nature of UI can be complex with various underlying causes: physiological; functional; cognitive and environmental (see Appendix A: Aetiology of Urinary Incontinence). A range of treatments and management strategies are effective in restoring continence or substantially reducing symptoms, with consequences for improving the quality of life for the person, many of which are suitable for delivery within primary health care (Burgio and Goode 1997, Seim et al 1998, AHCPR 1996, Button et al 1998). However, ignorance of effective treatments and strategies by those experiencing UI, and among health professionals, contribute to under-reporting and identification of UI. Patients often try and regain self-esteem and function by managing the problem themselves; severity of symptoms is the main trigger that drives sufferers to seek help; whereas early identification of the problem, appropriate information and treatment offer improved health outcomes and considerable scope to avoid deterioration of the functional and emotional status of patients and consequent loss of independence (Burgio and Goode 1997, Bear et al 1997). Such benefit is the key reason to improve the identification of UI in the population and to offer assessment and treatments, along with the need to address the high cost of continence services. Moreover, elderly people with UI are among the age-group most often in receipt of community and primary care services, so the role of community nurses in the promotion of continence is crucial (Pearson et al 1995, Audit Commission 1999).
Assessing the evidence for effective treatment and management strategies for the promotion of continence

Professional and political interest in improving outcomes for people with UI has become prominent. Effective treatment and management strategies available for the promotion of continence have been formulated into international guidelines and guidelines for use among primary care teams in the UK. Yet there remain problems with the standard of care received by people presenting with continence problems. Inadequate service provision and practice have been identified for elderly patients, failing to identify sufferers, offer assessment and treatment and focussing upon palliative management and the provision of containment aids (Roe et al 1996, Audit Commission 1999, DoH 2000a). However, nearly all areas of the National Health Service (NHS) are affected by health care practice that similarly is not evidence-based, among all health professions (DoH 1999, 2000b). For this reason effectiveness of clinical practice within NHS organisations has become a major theme of health policy reform with new statutory obligations for clinical governance (Hamer 2000).

Quality, active change management and clinical governance

Clinical governance measures focus upon accountability, improved cohesion of existing quality initiatives and in particular, support for ways to enhance active dissemination and implementation of effective healthcare practices, especially by the use of clinical guidelines (NHSE 1996, DoH 2000b). Effective implementation of evidence-based practice into clinical services is a complex matter, involving
consideration of both individual practitioners and health care organisations and requiring the active management of change (NHSCRD 1994, 1999). Deliberate, multi-faceted implementation strategies are necessary, tailored to the organisational and group contexts and structures (Humphris and Littlejohn 1996, Dunning et al 1999). Dissemination and implementation of research knowledge about effective health care practice in the promotion of continence among community nurses is the subject of this review, which is discussed here within the context of clinical governance.

Relevance to the current study

The literature reviews that follow locate the dissemination and implementation of research knowledge about effective health care practice in the promotion of continence among community nurses within the context of clinical governance. The reviews cover the following areas: quality initiatives that comprise clinical governance; evidence-based healthcare in the assessment, treatment and management of urinary incontinence; professional roles performed by healthcare professionals in the promotion of continence; professional knowledge and attitudes and resources supporting such roles; requirements to implement change in professional practice: individual effort, supporting guidelines, organisational factors and the active management of change.
2.2 Quality Initiatives in the NHS

Clinical governance can be seen as the outcome of a series of systematic initiatives that have operated within the NHS in recent decades, with intentions to measure and evaluate quality and improve services and clinical practice (Mulhall 1999, Hackett et al 1999, Baker 2000a). They included the introduction of quality assurance, standard setting and clinical audit (DoH 1989); prioritising an agenda for NHS research (DoH 1991b, 1993a); professional development and the promotion of research and development in the NHS (DoH 1994); improving dissemination and implementation of research findings (DoH 1995); focusing on clinical effectiveness (DoH 1996a); promoting evidence-based health services (DoH 1996b) and clinical practice guidelines (NHSE 1996, NHSCRD 1994, NHSE 1996). Recognition of the need for nursing to be research-based has been around far longer (Briggs 1972). However, as these initiatives have been at the discretion of each healthcare organisation, they have been pursued variably and with variable success (Garside 1998, Donaldson and Muir Gray 1998).

The Chief Medical Officer and other health policists have argued that existing quality initiatives have had little impact on actual health outcomes for patients and have remained largely rhetorical (Scally & Donaldson 1998, Baker 2000a, Halligan and Donaldson 2001). Interviews by Leatherman and Sutherland (1998) with 45 health service personnel in government, senior management, the professions and the academic world showed that initiatives too often exist within their own orbit, unlinked to other related activities. Examples of clinical effectiveness measures that fail to connect with practice guidelines or to inform audit topics and performance
monitoring were widely identified. Similarly, Firth-Cozens (1999) reported from a large regional staff survey (n=220), that existing initiatives were not currently systematically linked in the views of staff, or acted upon. Nearly all areas of the National Health Service (NHS) are affected by health care practice that is not evidence-based (DoH 1999, 2000b). Many factors have contributed to such a situation, including the level of accountability of individuals and organisations and their awareness of and ability to respond to knowledge of effective clinical interventions, where they exist.

The concept of clinical governance was framed in legislation to improve coherence of existing measures and to lead health trusts in effective service development. Within the sphere of continence care, for instance, ongoing problems exist with the standard of care received by elderly people presenting with continence problems, including failing to identify sufferers, offer assessment and treatment and focussing upon palliative management and the provision of containment aids (DoH 1991a, Roe et al 1996, Audit Commission 1999, DoH 2000a). Whilst “Good practice in continence services ” (DoH 2000a) offered clear contemporary policy advice, it was not mandatory since it was classed as “guidance” by the DoH and not “Guidelines”. More authority for improvements in continence services is contained in the National Service Framework for Older People (NSF) document (Thomas 2004), which states a requirement for Integrated Continence Services to be in place by April 2004 (DoH 2001).

The identification, dissemination and implementation of effective health care practice is not a straightforward matter (DoH 1999). The first consideration in any
analysis of how to promote effective healthcare practice is to examine the quality and range of research knowledge available in that particular field of healthcare. The field of continence care is very broad, as urinary incontinence (UI) is a symptom with many possible underlying causes and contributory factors, with an extensive range of treatments and management strategies available. (An explanation of the prevalence and aetiology of UI is presented in Appendix A). A discussion of current evidence to support practice is presented in the following section. Its application in recent clinical practice is then examined, followed by further sections examining the rationale for the use of clinical guidelines as a means to implement effective care and how deliberate strategies and the active management of change can enable implementation, both generally and in the field of continence care.

2.3 Evidence-Based Healthcare Practice

The key point concerning evidence-based practice is that it is founded upon effective clinical interventions that are derived from research of good quality (DoH 1996a, Muir Gray 1997, Dewar 1999, DoH 1999, Rodgers 1999. Effective clinical interventions are defined as those that:

“when deployed in the field for a particular patient or population, do what they are intended to do i.e. maintain and improve health and secure the greatest possible health gain from the available sources”

(DoH 1996a p45).

Quality of research evidence is judged highest where there is high volume of studies designed to avoid bias. Systematic review via a meta-analysis of comparable randomised-controlled trials (RCTs) is considered the most rigorous source of clinical data. However, the amount of high quality, strong evidence available in many areas of health care is relatively small, with no research at all to support some
areas of practice (Le May 1999, Cheater and Closs 1997). An established hierarchy of evidence acknowledges that research evidence varies considerably in strength and some studies have higher status (see Table 2.1) (DoH 1996a, Muir Gray 1997, Cheater and Closs 1997).

<table>
<thead>
<tr>
<th>Type</th>
<th>Strength of Evidence</th>
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<tbody>
<tr>
<td>1</td>
<td>Strong evidence from at least one systematic review of multiple, well-designed controlled trials</td>
</tr>
<tr>
<td>2</td>
<td>Strong evidence from at least one properly designed randomised-controlled trial of appropriate size</td>
</tr>
<tr>
<td>3</td>
<td>Evidence from well-designed trials without randomisation</td>
</tr>
<tr>
<td>4</td>
<td>Evidence from well-designed non-experimental studies from more than one centre</td>
</tr>
<tr>
<td>5</td>
<td>Opinions of respected authorities, based on clinical evidence, descriptive studies or reports of expert committees (consensus statements)</td>
</tr>
</tbody>
</table>

Table 2.1: Hierarchy of the strength of different types of evidence (DoH 1996a, Muir Gray 1997. Cheater and Closs 1997)

All research however, has limitations upon its ability to be generalised. This is a common criticism of qualitative research designs (Seers 1998, Mulhall 1999), which do not feature at all in the hierarchy, but even RCTs may be limited in their generalisability into new settings, as all settings differ (Cheater and Closs 1997, Eccles and Grimshaw 2000) and may have other distinct limitations where knowledge may be incomplete about the relative benefits and harm or cost data (Eccles and Grimshaw 2000). The hierarchy of evidence appears to be a crude guide, emphasising categorical data, and fails to acknowledge the vital function of
exploratory work fulfilled by qualitative research or action research, which deals with the reality of research settings and practice change. What the hierarchy does include however is that best practice consensus (Level 5 evidence) may be the only source of knowledge, although it occupies the lowest rank and health policymakers recognise this fact (DoH 1994, 1996a).

A substantial amount of clinical evidence is available concerning effective treatment for UI and management strategies for the promotion of continence. A number of systematic reviews (using the Cochrane Collaboration Review protocol) report efficacy of the main sole treatments for overactive bladder (Roe et al 2003) and stress incontinence (Hay-Smith et al 2003), but with reservations due to the shortage of comparable studies. Much of the knowledge of treatment for UI, especially for combined treatments and strategies is based upon other levels of evidence, especially clinical judgement and experience and may not be underpinned by research-based evidence. Therefore, the compilation of clinical guidelines for UI by the Agency for Health Care, Policy and Research (AHCPR 1992, 1996); by Button et al (1998) in guidelines for use within primary care; and most recently by the Nursing and Midwifery Practice Development Unit (NMPDU 2002), has relied upon consensus statements by “experts” (Level 5 evidence), where no robust research-based evidence exists.

2.4 Approaches to the Treatment of Urinary Incontinence

A range of behavioural, physical, pharmacological and surgical treatments are clinically effective in restoring continence or substantially reducing symptoms in 80-90% of cases (AHCPR 1992). Excepting surgery, such treatment and management
can be provided within primary care, where practitioners have an appropriate level of knowledge, skill and experience (AHCPR 1992, RCP 1995, Burgio and Goode 1997, Button et al 1998). However, it is less well documented how lifestyle management techniques can assist in the promotion of continence and they do not appear in published guidelines until 2002 (NMPDU 2002). Behavioural treatments can be used to modify overactive bladder, stress and mixed incontinence by helping patients change their bladder habits or teaching new skills. They are the least invasive treatment approaches and have no irreversible side-effects, but require commitment to regimes by patients or carers and supportive, well-informed professional care. Behavioural techniques are often accompanied by drug therapy (AHCPR 1992).

Bladder retraining to treat overactive bladder and mixed incontinence involves a gradual voluntary increase in the interval between voiding to increase bladder capacity, (with concomitant distraction and relaxation techniques), until frequency is reduced to three or four hourly intervals and symptoms improve (AHCPR 1996). Roe et al (2003) are reserved about the effectiveness of bladder retraining as sole therapy, owing to the varied quality of the few randomised controlled studies examined in their systematic review, and evidence that effects wane over time. However, high clinically successful rates have been reported (57-76%) using various regimes ranging from one to six months in treatments (Van Kerrebroeck 1999) or in combination with pelvic floor muscle exercise (Lagro-Janssen et al 1992), whereby unwanted detrusor contraction can be counteracted by a more effective holding mechanism during pelvic floor contraction (Abrams 1995). Anticholinergic drugs such as oxybutynin (Szonyi et al 1995) and tolterodine (Messelink 1999) are often used as an adjunct, to reduce bladder contractions.
Pelvic floor muscle exercises are the most commonly recommended physical therapy treatment for stress and mixed incontinence and appear to be an effective treatment with no irreversible side-effects (Hay-Smith et al 2003), but are less commonly used for overactive bladder. Exercise regimes comprise active exercises of the pubococcygeus muscle that strengthen the urethral sphincter and increase muscle bulk when repeated (Laycock 1992, Knight et al 1998, AHCPR 1992, Laycock and Jerwood 2001). 60-70% cure or improvement rates measured both subjectively (reduction in episodes of incontinence and use of pads) and objectively (vaginal examination, bladder diary) have been reported by Berghmans et al (1998) in a systematic review of 24 randomised controlled trials. Hay-Smith et al (2003) found more limited evidence in meta-analysis of 43 trials, due to variations in methodological and outcome measures, but concluded that pelvic floor muscle training appeared to be more effective than no treatment or placebo. For patients initially unable to identify and squeeze pelvic floor muscles, biofeedback techniques (Weatherall 1999) and electrical stimulation are deemed especially helpful (Knight et al 1998), sometimes combined with other therapies including oestrogen therapy (Burgio et al 1991), or the use of vaginal cones (Herbison et al 2003). Clinical success rates of 50-90% are reported for multiple methods (Burgio and Goode 1997). Essential components of a successful regime are critical assessment of pelvic muscle strength, performance feedback and a well-constructed programme, not just brief verbal instruction (Laycock 1992, Laycock and Jerwood 2001). Miller (2002) has also suggested appropriate patient selection is a key issue. She recommended that criteria should include absence of reversible causes, adequate alignment of pelvic organs, intact structural support and functional muscle activation ability. Miller also advocates that training should take place in two dimensions, strengthening exercises
and skill development. With clear protocols for training, the problem of incorrect method, which has been suggested to worsen symptoms in patients (Bump et al 1991), might be overcome. Exercise regimes are tailored to an individual and therefore it is not surprising that one single optimal exercise programme has not been identified in the literature. However, a variety of individual or group teaching sessions that range from 4-26 weeks have reported successes (Berghmans et al 1998).

Other behavioural measures that are carer-led can be used for people with or without cognitive impairment but who require help in toileting (Colling et al 1992, 1996, Button et al 1998, Eustice et al 1999). Eustice et al (2003) reviewed five trials including 355 patients and found that prompted voiding using monitoring, prompts and positive reinforcement can increase self-initiated voiding and decrease incontinent episodes in the short-term. The long-term skilled use of this form of behavioural modification among people with learning disability is well-established, based upon work such as Azrin and Foxx (1971). Habit training (also called timed voiding) uses the individual’s own natural voiding pattern to pre-empt wet episodes and achieve continence. It has helped to decrease numbers of wet episodes for elderly people in one controlled study in institutional settings where staff compliance is high (Colling et al 1992) and another, at home with informal carers who are supportive (Bear et al 1997).

Combined life style treatments have also been examined. Dowd et al (1996) reported symptom improvement in 35 older women using a range of treatments including monitoring and adjusting medication, avoiding constipation, adjustment of fluid intake and reducing caffeine intake, although differences were not statistically
significant. Ramsay et al (1994, 1996) examined the effect of a combination of physiotherapy for mobility and pelvic floor muscle exercises, bladder retraining, fluid and dietary advice and reported a 63% improvement to a level where no further treatment was needed. However, difficulty arises when comparing multiple approaches in a Cochrane review. Moore et al (2003) expressed reservations in the efficacy of one or more treatment combined with lifestyle measures for post-prostatectomy UI. The treatments involved pelvic floor muscle training, bladder retraining, biofeedback and electrical stimulation; and lifestyle measures included decrease or elimination of caffeine, physical exercise and smoking cessation. They noted that men’s symptoms tended to improve over time irrespective of management. Only six studies were available in the review, which highlights that mixed groups of behavioural treatments combined with lifestyle changes are not widely represented in published studies and appear difficult to compare, therefore evidence of their effectiveness is limited. Such studies do however represent methods particularly useful for elderly, dependent patients affected by multiple contributory factors of UI.

In the absence of clear evidence upon which to base management and nursing interventions in continence care, consensus guidelines or best practice statements prepared by expert practitioners may be the only guidance that is available (Button et al 1998, DoH 2000a, NMPDU 2002).

Drug therapies, alone or in combination with behavioural therapies may be used to treat UI. Alpha-adrenergic agonist agents (e.g. phenylpropanolamine) are the main drugs used to treat women with stress incontinence, with 30-60% subjective improvement. These drugs are sometimes used in conjunction with oestrogen therapy (Button et al 1998). Oestrogen replacement therapy for post-menopausal women,
particularly with possible risks of breast cancer attached to its long-term use, remains controversial (Robinson and Cardoza 2003). Its use however, has achieved combined cure and improvement rates of 43% for women with stress incontinence and 57% for overactive bladder in a review of 28 trials by Moehrer et al (2003). Oestrogen therapy used topically has also been demonstrated to improve symptoms of vaginal atrophy (Messinger-Rapport and Thacker 2001).

Anticholinergic agents are used as first-line therapy for overactive bladder (Fraser and Chancellor 2003), but have predictable side-effects. Anticholinergic drugs alone can be 70% effective (Norton 1996), but, owing to potential side effects should begin with low initial doses (Button et al 1998). Dry mouth is most common and can limit tolerance of treatment. Kelleher et al (1997) found only 18.2% of patients still on standard anticholinergic therapy at six months. Tolterodine is associated with less dry mouth and may be better tolerated. Development of extended–release preparations avoid common side-effects, increase tolerance and may promote better compliance (Garely and Burrows 2002).

2.5 Management of Urinary Incontinence

Some behavioural therapies can be considered to be management techniques, where continuous application is needed for symptom control. Other management methods involve the use of aids and appliances to reduce UI. Urinary catheterisation is a management method used in the short or long term to maintain continence for patients with overflow incontinence, acute or chronic retention of urine caused by prostate obstruction, or underactive bladder caused by neurological disease such as
multiple sclerosis or injury (AHCPR 1992, Getliffe 2002). The use of long-term indwelling urinary catheters is not a first-line method for managing UI, given the potential for catheter-associated problems such as infection, tissue erosion, or recurrent catheter blockage. However, for some patients an indwelling catheter can provide relief where other treatments are unsuitable or unsuccessful (Getliffe 2002).

Indwelling catheters have been developed in materials designed to reduce discomfort, minimise inflammatory reactions and friction on insertion and removal, permitting toleration of longer periods between changes (up to 3 months). Accessories that ensure a closed drainage system, to reduce the risk of infection, catheter valves that control bladder filling and maintain bladder capacity, and supports to ensure safety and comfort are available. Skills in catheter management among district nurses, continence services and urology departments have grown, supported by commercial product development, so that male patients as well as female patients with urethral catheters and those with supra-pubic catheters can have them changed at home and be effectively cared for in the community.

Intermittent catheterisation is an active self-management method that is a less invasive alternative to an indwelling catheter, with fewer associated risks of complications for patients with the above conditions. However, the patient needs to be motivated to use the method, have cognitive ability, physical competence (manual dexterity to manipulate the catheter and physical suppleness to insert it in their urethra and drain it into a receptacle), or someone to assist them.
Collection devices for men include penile sheaths and pubic pressure body-worn urinals attached to a leg drainage bag (Watson 2002). Sheaths are applied with or without integral adhesive, (which can cause erythema). This method can be used independently or with assistance. Pubic pressure devices require individual measurement and fitting at first, but tend to work reliably, as they do not require close fit on the penis, but can cause rubbing and sweating. A range of collection devices for women exist, of variable value, especially as they require good dexterity to manipulate (Norton 1996, Fader et al 1999).

Containment aids include disposable and re-useable body worn pads and underpads for use on chair and bed surfaces. These absorbent products are available for individuals to buy and are also provided to patients through community continence services in the UK, usually managed by specialist continence advisers. Various advances in product design have led to improvements in absorbency, wicking of urine away from the skin surface and shaping of the products to body contours, which have reduced risk of skin problems and provide effective containment. However, such products are costly for health trusts to provide and many have adopted restrictive criteria for eligibility, rationing and waiting periods have been used to cope with the expense (Clayton et al 1996, DoH 2000a, Thomas 2004).

2.6 Professional Roles in the Promotion of Continence

Lead roles in providing assessment and all first-line behavioural, physical and lifestyle treatments and management techniques are performed by a range of health professionals including nurses, specialist nurses (urology or continence care),
physiotherapists, general practitioners (GPs) and urology and uro-gynaecology specialists (see Section 2.9). Whilst prescribing UI drug therapies remain a medical responsibility, as they are not included in the prescribing Formulary for nurses, this does not prevent nurses contributing to treatment decisions in general; and specialist nurses in particular, offering advice to GPs about current trends and treatments. Moreover, Button et al (1998) pointed out in their own guidelines for primary care, that any member of the multidisciplinary team might provide a role in the assessment, treatment and management of UI. The main recommendation is that care be provided by:

“a healthcare professional who has the appropriate knowledge and expertise”

Button et al 1998, p 14

This feature was later endorsed in the national guidance document “Good practice in continence services” (DoH 2000a) where models of practice development were targeted at all healthcare professional roles, but especially nurses. Primary health care is increasingly regarded as the most appropriate and effective setting for continence assessment, symptomatic diagnosis and first-line treatment to take place (RCP 1995, Button et al 1998, DoH 2000a). It appears, however, that whilst community nurses have an established role in the assessment and management of patients with UI, they are less involved in the direct treatment of patients within primary care as shown by the findings of two substantial reports conducted into continence services; Roe et al (1996), in a study of two health authorities and the Audit Commission report (1999) of UK-wide provision of community continence services. Systematic assessment, a vital component in the process of providing effective treatment and management for UI, and the role of nurses in continence assessment are both examined in further detail in the following section.
2.7 Patient Assessment and the Role of Community Nurses

Systematic patient assessment is essential for all patients presenting with UI, to identify all the factors that might be contributing to the problem and distinguish causes. There is consensus in the continence literature about the importance and content of continence assessments (see Table 2.2) (AHCPR 1992, Button et al 1998, Audit Commission 1999, DoH 2000a). This emphasis arises in part from the complexity of the problem. UI is a symptom, commonly experienced with other related clinically significant lower urinary tract symptoms (e.g. nocturia, urgency, frequency, hesitancy and straining) (see Appendix A), which have many possible underlying physiological causes compounded by or concomitant with other disease or functional problems, that require different therapeutic approaches. Identification of causative factors is often further complicated by the presence of illnesses and other problems such as drug side-effects, so that patients’ difficulties may be multifactorial, especially in the care of frail, elderly people (AHCPR 1996, Engberg et al 1997).
An assessment should involve a detailed medical history, continence history, physical examination and objective measures of urine testing and a fluid input/output chart (RCP 1995, Abrams 1995 Getliffe 2002). Questions about the impact of the symptoms upon the quality of the patient’s life are also important measures (Abrams 1995, DoH 2000a, Milsom et al 2001), since it is well recognised that perception of the degree of distress caused by UI is very individual. The impact of UI on different individuals’ quality of life can be very different even when symptom severity is similar. The nature of assessment needs to take account of the whole person, to

<table>
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<tr>
<th>Medical/surgical history</th>
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<tr>
<td>Symptoms, characteristics, frequency, duration, pattern.</td>
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<tr>
<td>Medication</td>
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<tr>
<td>Social and environmental factors, effects on quality of life</td>
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<tr>
<td>Degree of bothersomeness of symptoms</td>
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<tr>
<td>Mobility and functional abilities</td>
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<tr>
<td>Chart of fluid intake/output- frequency/volume chart</td>
</tr>
<tr>
<td>Bowel function</td>
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<tr>
<td>Height, weight, body mass index</td>
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<tr>
<td>Urinalysis: hydration, glycosuria, infection, haematuria</td>
</tr>
<tr>
<td>Post-voiding residual volume of urine</td>
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<tr>
<td>Physical examination of perineum</td>
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<tr>
<td>Neurological examination</td>
</tr>
<tr>
<td>Pelvic and digital vaginal examination in women</td>
</tr>
<tr>
<td>Rectal examination in men and women if indicated.</td>
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**Table 2.2: Components of assessment of urinary incontinence**
obtain information that can lead to a working diagnosis and treatment or management strategy.

The quality of patient data gathered at assessment can be influenced by the method of collection. A systematic and consistent approach to gathering and documenting information can be achieved by the use of a user-friendly, well-designed document and preferably a single assessment tool used by all primary health care team members and the continence advisory service, within one service area (Button et al 1998, Getliffe and Dolman 2002). Questionnaire design of good quality would, for instance, offer space for sufficient detail, trigger questions and sections for the patients to complete themselves that could assist in the identification of underlying causes (NMPDU 2002). Little evaluation of different methods of history-taking have been reported, although two examples were found. In one study, patient involvement in completing a questionnaire resulted in better identification of symptoms than in a medical interview. Barry and Hodges (1973) cited by Cheater (1990), found that 70% of patients reported major urological symptoms when they participated in using a questionnaire, but only 33% of patients did so during a medical interview. This may be because in completing a questionnaire patients had more time to consider their answers. It may indicate that interview techniques used by healthcare professionals and the time they had available to spend for individual assessments limited the amount of thought that patients could offer to provide detailed information. On the other hand, in the second study, particularly sensitive questioning techniques have been reported to be more successful than questionnaire use in gathering continence status data (Fultz and Herzog 2000). In this study (a national telephone survey), random assignation to one of two questionnaire formats
took place. Both questionnaires contained the same continence questions, but one included an introduction to the topic and a follow-up probe question, which elicited a significantly higher prevalence rate among respondents. Both study examples seem to indicate what other authors have identified, that an important factor is the engagement of patients in the assessment process to achieve compliance with providing information alongside sensitive questioning (Cheater 1990, Abrams 1995). There are several well-designed assessment tools available which use this approach (Getliffe and Dolman 2002).

The quality of the initial contact between the person with UI and a healthcare professional is crucial to the success of their future care. Any member of the primary health care team is well placed to embark on the process, either themselves or by referring to a more knowledgeable colleague. Open-ended questions during other healthcare contacts or planned screening such as over 75 year screening assessments may encourage patients to identify a problem (Button et al 1998), as patients are often unwilling to initiate discussion or admit to a continence problem. Sensitivity, taking the problem seriously and supportive approaches require certain skill both initially and in conducting the interview and assessment itself, to engender trust from the patient and possibly their carers. Patience and an unhurried approach are needed in order to be thorough and gather appropriate information (Fultz and Herzog 2000). It may be necessary to spread the assessment and collection of data over more than one session, especially for elderly patients. As UI is a non life-threatening problem, this may be an advantage to achieve thoroughness of assessment, however it may also mean that GPs and nurses, who have competing demands made upon them, may be reluctant to spend the amount of time necessary for a full assessment and follow-
up care as Clayton et al (1996) found in an examination of practice across three health authority areas.

Under-reporting of UI can also be influenced by attitudes of healthcare professionals. In a practice development study by Abbott (1998), community nurses were to provide systematic assessments for UI among women under 40 years of age, but felt unsure of their ability to perform detailed assessments; they felt one hour was an inappropriately long period of time to spend doing so. Abbott reported that at evaluation he discovered the nurses were reluctant to accept a greater role in continence assessment, partly because it involved working with an age group they did not usually meet and so involved an additional unwelcome responsibility. Professional attitudes are further discussed in Section 2.12

Continence assessment is not necessarily a role for a specialist healthcare professional only, although their help may be needed. Many assessment skills such as interviewing to obtain a medical history and details of the problem and other procedures listed in Table 2.2 are common to all thorough patient assessment; and already carried out by community nurses; or are readily incorporated in their practice (Moore and Fader 1999, DoH 2000a). The importance of some specific objective measures and examination procedures are examined below.

Charting of frequency and volume of urine output is an essential component of assessment that is widely recommended (Abrams 1995, Moore and Fader 1999 Audit Commission 1999). It involves the completion by the patient, with help from carers if needed, of a fluid intake/output chart sometimes called a frequency-volume chart or
bladder chart. Variations in the length of time charting should be maintained have been suggested; to provide clear information about voiding and intake patterns. Seven days are customary, but charting for shorter periods (1-3) days has been demonstrated to be stable in compliant young and older adults; and may provide sufficiently representative information. An optimal length of time appears to be between 3-7 days, to give a reliable overview (Robb 1985, Van Melick et al 2001, Fitzgerald and Brubaker 2003).

Detailed information collected from a chart about periods of continence and incontinence can be utilised for diagnosis and treatment (Norton 1987, Cheater 1990, Abrams 1995, Moore and Fader 1999, Bignell 1999). Total volume of daily fluid intake and urine volume over several days can reveal patterns of unusually high or low amounts and times that cause most urinary symptoms. Average and maximum bladder capacity can be estimated, indicating features including small capacity or overflow. Patterns of voiding, including wet episodes can be used in conjunction with reported symptoms to lead to a working diagnosis and to help plan behavioural treatments where appropriate, such as habit training and prompted voiding (Cheater 1990, Abrams 1995, Moore and Fader 1999, Van Melick et al 2001).

Urinalysis is an essential part of any assessment of urinary problems (Elliott 1990, RCP 1995, AHCPR 1992, Getliffe and Dolman 2002). Reagent strips such as Multistix 10SG (Bayer: Newbury, Berkshire) incorporate tests for:

- Blood and protein: indicators of renal, bladder or other disease.
- Nitrites and leucocytes: detect infection. More sensitive to the presence of infection than protein and microscopic blood. If any or all are detected or
there are clinical signs and symptoms of infection (cloudy, offensive, or overtly bloody urine or dysuria, fever, confusion or abdominal pain) a midstream urine specimen for culture is indicated.

- Glycosuria and the presence of ketones: if positive, can indicate diabetes mellitus.
- pH represents acid/alkalinity balance: low pH reading (pH 5) can precipitate bladder irritation and renal stones.
- Specific gravity: a high reading is an indicator of dehydration, or conversely low values indicate water diuresis.

Ostensibly a straightforward test of considerable value, urine testing is not always used in continence assessment. Poor availability of a supply of urine testing reagent sticks, and understanding of the importance of performing the test were speculated reasons for the test not being used by healthcare staff in Button’s study (one GP practice) (1998) and used in only 50% of continence assessments conducted by district nurses that were examined in seven health trusts by the Audit Commission (1999).

Post-voidal residual volume measurement (PVRV) measures urine remaining in the bladder after voiding. An amount greater than 100mls is commonly regarded in adults to indicate incomplete emptying, a possible indicator of neurological disease, requiring detailed urodynamic investigation (Button et al 1998). The simplest non-invasive way to measure PVRV is by ultrasound scanning of the bladder, but it can also be measured by catheterisation to drain of residual urine. Ultrasonic equipment
for bladder scans is usually available within primary care, via continence advisory services that provide the expertise to perform and interpret scans (Fader 2002).

Physical internal examinations can be performed by GPs, continence advisers or physiotherapists (Bo et al 1999, Lagro-Janssen et al 1998, Seime et al 1998) but require new skills for some nurses to be able to perform a complete continence assessment (Abbott 1998, Williams et al 2000). Vaginal examination may be a competency among some nurses who have undertaken a Promotion of Continence, family planning or cervical cytology training course or been involved in clinic assessment or training from clinical nurse specialists in urology or continence (Williams et al 2000, Clayton et al 1996). Vaginal and rectal examination may not always be necessary as part of an assessment, or may be declined by the patient, especially elderly people (Getliffe and Dolman 2002). Visual examination of skin around the rectum and perineum and rectal examination to exclude constipation are established nursing practice and might identify obvious abnormalities and reversible conditions (Moore and Fader 1999, RCN 2000). However, examination of the prostate seems to remains part of a medical examination, or that of specialist urology nurses and a full neurological examination requires the skills of a medical practitioner (Button et al 1998).

Community nurses are capable of carrying out most aspects of continence assessment, although some aspects, as shown, are more specialised and may need additional skill and experience (Moore and Fader 1999). In view of the range of assessment skills that are needed, an approach to continence assessment that utilises skills possessed by several members of the multidisciplinary team may be required
Community trusts also benefit from skilled support from specialist continence advisers, whose role includes education and advice to primary care teams and community nursing services (Roe et al 1996, Audit Commission 1999, Thomas 2004) (See section 2.11 role of the continence adviser).

2.8 Diagnosis in Primary Care

Primary care is the most appropriate setting for first-line assessment, diagnosis and treatments, which are within the scope of the primary care team and the existing capabilities of community nurses. This is especially apt, considering that groups of patients vulnerable to UI problems, such as elderly or disabled people are the main group of patients served by primary care services, in particular, district nursing and some health visiting services. This contact offers opportunity to identify sufferers, who often do not report UI problems but for whom early treatment could be effective (RCP 1995, Abrams 1995, AHCPR 1996, Button et al 1998, DoH 2000a). For many patients with UI, diagnosis of the causes/types of incontinence can be achieved accurately in many cases using symptomology and history alone, (Kurth 1999), avoiding the necessity of waiting lengthy periods for hospital investigations (RCP 1995). Early diagnosis can lead to the initiation of prompt treatment, so improving both quality of life and quicker relief of symptoms.

Characteristics of the urinary symptoms expressed often indicate the type of underlying problem (Getliffe and Dolman 2002). Symptomology is commonly used to determine initial treatments for stress incontinence (Burns and Nochajski 1992), overactive bladder (Artibani 1997) and mixed incontinence (Ramsay 1994, 1996). However, it is considered that urodynamic investigation offers the most definitive
diagnostic means to identify physiological causes of incontinence (Abrams et al 2002, Gordon and Groutz 2001). In its review and recommendations for continence practices, the Royal College of Physicians (RCP 1995), among others (Knight et al 1998, Gordon and Groutz 2001) asserted that urodynamics should be regarded as best practice before treatment or management methods are chosen as they are believed to facilitate better treatment. However, comparisons between diagnosis reached by symptomology and urodynamics have shown close correlation for stress incontinence (80%), to a lesser extent for overactive bladder (60%), but with lower correlations (25%) for mixed incontinence (Stanton and Hilton 1981, Diokno et al 1987, Johnson and Busby-Whitehead 1997). Comparisons of outcomes to treatment on the basis of diagnosis by symptom reporting, compared to urodynamic findings, found no difference in response to conservative treatment (Ramsay et al 1994). For this reason, and on account of the immediacy for instigating treatments, the initiation of first-line conservative treatment on the basis of symptoms and history have consequently become established and recommended practice within primary care (RCP 1995, AHCPR 1992, DoH 2000a).

Practical implications for this approach are that first line treatments can be initiated promptly for patients within primary care in response to the patient’s presenting symptoms. Otherwise, in view of patient numbers, limited availability of diagnostic equipment and specialist staff, protracted waiting times for urodynamic assessment can be experienced (RCP 1995). However, recommendations for first-line treatments to take place within primary care require that a through assessment (history, objective measures and examination) has been carried out and that care is reviewed

A range of guidance, sometimes called care pathways (Tower Hamlets 1997, NMPDU 2002), algorithms (RCP 1995, AHCPR 1996, Fader 2002, Abrams 1995), guidelines (AHCPR 1992, Button et al 1998, DoH 2000a, 2000b), or best practice statements (NMPDU 2002), have been developed to support and guide activities in the process of assessment, diagnosis, first-line treatment and planning onward care of patients if first-line treatments are not successful (Hilton and Stanton 1981, AHCPR 1992, RCP 1995 Abrams 1995, Button et al 1998, DoH 2000a, NMPDU 2002). Further investigation or secondary referral is indicated where symptomatic treatment fails or serious abnormality is detected (Walters and Realini 1992, Button et al 1998). Each guide clarifies the circumstances where more expert skills are needed. For instance, these may be provided either by other members of the primary health care team, via the continence advisory service, or secondary referral to hospital specialists. Development and implementation of such clinical advice in the form of guidelines is examined further on in section 2.14 and clinical guidelines developed for this study in Appendix B.

2.9 Practice Promoting Continence in Primary Care

Evidence is available that successful outcomes can be achieved when health care professionals in primary care, other than physiotherapy or urology departments provide assessment and therapeutics, with effects that persist over time (Bo et al 1999, Messelink 1999), although some equipment and expertise are only available in
specialist settings (Knight et al 1998). In a (Norwegian) longitudinal study using an historical control, 100 women under 65 years were treated for their urinary incontinence at their GP practice, by their GP (Lagro-Janssen et al 1991, 1992, 1998). Overactive bladder, stress and mixed incontinence symptoms were treated using pelvic floor muscle exercises, bladder retraining or both. Verbal and written instruction for 5-10 daily sessions and examination to ensure correct contraction of pelvic floor muscles were given on a single occasion using a standardised protocol. Results achieved at three months were a reduction in incontinent episodes in 60% of the treated group with 85% reporting a subjective improvement. After one year, this effect persisted, but fell after five years to 50% and 69%, in the 39% of women who had continued with the regime. Another European long-term follow up study using a protocol for nurses and GPs demonstrated similar findings; an initial 69% cure or that symptoms were better (evaluated using a severity index), that reduced at five years to 59% better or unchanged (Seim et al 1998). These studies indicate the potential value of primary care interventions for people under 65 years and that for the majority improvements were maintained over time.

There are relatively few research studies that examine the impact of nurse-led continence care in primary care. However, a well-designed British longitudinal study was conducted by O’Brien et al (1991), with a follow-up after four years (O’Brien and Long 1995). A non-specialist nurse trained for three weeks by the continence adviser and physiotherapist provided all assessments and then treatments for overactive bladder, stress and mixed incontinence in the form of structured pelvic floor muscle exercise classes for four weeks, followed by bladder retraining. The patients had been identified by a survey of UI and those who took part desired
treatment (n=314), of whom 292 were women and 22 were men. Others desiring treatment (64 men and 41 women) required referral to their GP. The study included elderly people over 65 years, who comprised 33% of participants, including some who received their therapy at home. 68% (197) of women (compared to 5% in a control group, who were subsequently offered treatment) and 77% (17/22) of men compared to none in the control group, described subjective improvement or cure after three months. Surviving women in the sample were surveyed at four years (n=229), of whom 69% had maintained improvement, or further improved without additional support in the intervening period. Subjective reporting by patients tends to produce higher ratings than other measures, however, measures of improved quality of life are both valuable and deemed valid (Bo et al 1999) and have become vital outcome indicators of service effectiveness (Brocklehurst et al 1999, DoH 2000a, 2002b).

Reports of proactive continence promotion roles and measures used by community nurses have also been made, where they work across community nursing services, rather than with a specific GP practice, as above. Clayton et al (1996) reported comparative costs, quality and effectiveness in a comparative study of different service models employed across three health authority areas. Within one area, the role of nurses who had undertaken a Promotion of Continence (ENB 978) course (called link nurses) provided continence assessment and care. The link nurses were involved, in addition to their other nursing roles, in running continence clinics, promoting continence and providing education and training to colleagues, supported by a continence adviser. They used protocols to provide continence treatments for six weeks, before referral to the continence adviser was made, if needed. In another of
the areas examined, all district nurses were responsible for the performance of a compulsory continence assessment, followed by a six-week treatment programme supported by protocols before a referral onto a continence adviser was made. These two areas used most of their service budget to provide assessment, care and treatment using protocols, but spent less on the supply of continence products for patients. By contrast, the remaining area operated severe rationing for products and did not have an established care service.

A pilot study using a dedicated community nurse role (five within one health trust), solely responsible for continence care, providing assessment and treatment for patients, was carried out by Williams et al (2000). A schedule including thorough assessment and eight weeks of treatments, supported by three patient visits, was provided for patients with overactive bladder and/or stress incontinence. Patient outcomes showed both objective and subjective improvement (n=194). Statistically significant falls in nocturia, frequency and a rise in mean voided volume were found in the group, along with some reduction in wet episodes. Bladder training measures showed significant improvements. 60% of patients reported marked improvement or cure and 69% reported achievement of their continence goals. Although lacking comparisons with untreated patients and risk of bias, bearing in mind the tendency for higher levels of subjective improvements to be reported by patients, this study also showed significant reduction in some objective signs, especially reduction in pad use among patients who were over 40 years, compared with younger patients (Seim et al 1998, Messelink 1999). Williams’ study contributes further to the evidence that effective treatments and management can be achieved by nurses.
providing focussed continence service provision in community settings, for adult and elderly patients.

Other similar nurse-led schemes are operating throughout the UK (Tower Hamlets 1997, Nolan 1997, Thomas 2004), although reporting is descriptive rather than analytical. Such roles, giving responsibility to primary health and community nursing teams (usually supported by continence advisers) to identify and provide first-line treatment for UI problems, are now recommended for future developments of continence services (DoH 2000a). Such role development for nurses has become more possible since less prescriptive requirements were introduced by their governing body (United Kingdom Central Council (UKCC, now the Nursing and Midwifery Council (NMC)). Within “The Scope of Professional Practice” (NMC 2002), additional training and competency, rather than particular tasks now define the extent of nursing roles, making it possible for new skills and expertise to develop, often within defining protocols and additional specialist nurse support. As a consequence, new nurse roles in some areas have grown imaginatively in both hospital and community settings; examples include health visitors within the area of child health (Kendrick et al 2000), for district nurses in leg ulcer management (Morison and Moffatt 1994), and nurse prescribing from a formulary (with additional legislation) (Humphries and Green 1999).

However, the quality of care for patients with UI remains of variable standard across the country/countries as acknowledged in policy documents in the UK and internationally over many years (DoH 1991a, RCP 1995, AHCPR 1996). Despite direct contact with sufferers and assertions that nurses in general play a major role in
assessing bladder problems and providing care, causes of incontinence are frequently not identified by nurses (Palmer 1995) or by doctors (McDowell et al 1994) working in elderly care settings, and appropriate care is not offered. Cheater (1990), Palmer (1995) and the Audit Commission (1999), reported that the management of elderly patients with incontinence focused predominantly on measures aiming to contain the problem, with little attention given to evidence-based rehabilitative interventions (treatments and management) This accords with self-reported practice from district nurses who revealed mainly palliative management practices (Burnet et al 1992, Penney 1999) and care reported by patients and carers (Bartholomew et al 1998). Roe et al (1996) found in their study of community nurse practice in two health authorities (n=376):

“a very low level of nurse activity in providing all aspects of continence care”

In particular, the quality of continence assessments has been found to be inadequate. The Audit Commission (1999) reported that the practice of district nurses in the promotion of continence in seven health trusts showed inadequate assessment. Roe et al (1996) also found assessment procedures by doctors and nurses were poor and that very few patients had actually received one (8% n=59). The Audit Commission report (1999) used the Royal College of Physicians’ audit scheme (RCP 1998) and found in 158 assessment documents examined that there were failures to note the physical restrictions that may impact upon the patients continence status, record urinary symptoms; only half had received a urine test and charting of toileting habits and wet episodes occurred in only 17%. The report makes the point that this may not necessarily mean that care was equally poor. Indeed, Roe et al (1996) also made this point and reported that some of the nurses were actually providing health interventions based upon good practice; in particular pelvic floor muscle exercises,
with improvements reported by the patients; and making appropriate referral to urology departments. However, Roe et al (1996) also pointed out that incomplete assessment offers no baseline for later review, may delay appropriate treatment and present an incorrect diagnosis.

2.10 Knowledge of Continence Care

One explanation for the shortage of rehabilitative approaches (treatment and active management methods rather than containment methods alone) in continence care is that many health care practitioners are not sufficiently knowledgeable/experienced to diagnose and treat urinary incontinence (Cheater 1990, Palmer 1995, Penney 1999). Clearly this issue is closely related to the level of their education in continence care. Cheater (1990) in her study of nurses of all grades (n=382) from five hospitals in one health authority, found that nurses had received a very limited amount of education in continence care in their training and she identified a serious lack of post registration education in continence care amongst all qualified staff and an inadequacy in the content of training received. Considering the expansion in knowledge and training opportunities in the subject at that time and since, (instigation of promotion of continence courses by the training arm of the English National Board (ENB 978), development of roles for continence advisers and national policy advice (DoH 1991a, DoH 1994), more recent findings were no more encouraging in similar or other practice settings. Nurses caring for elderly people in nursing homes (Palmer 1995, Penney 1999) and care of the elderly hospitals (Williams et al 1995) have been found to lack in-depth knowledge about all aspects of continence care, concurring with earlier self-reports by district nurses (Burnet et al
Penney (1999) identified continuing low numbers of nurses who had received continence training and especially promotion of continence courses. Both Cheater (1990) and Penney (1999) reported that nurses had mostly received teaching on managing UI using containment methods, rather than rehabilitation and treatment. One important development in continence services in the intervening years between these studies was the development of the role of continence advisers. In principal, this role offers an important source of education and in-service training for continence care and service leadership (Roe et al 1994, Rhodes and Parker 1993).

### 2.11 Role of the Continence Adviser

Continence advisers, play a key role in leading evidence-based practice through developing standards and guidelines (Audit Commission 1999), as well as the education and support of primary health care teams (DoH 1991a). Roe et al (1994) identified key functions of the role specifically as education of healthcare practitioners and management of a continence service, followed by clinical practice and research. However, Rhodes and Parker (1993) found that just 20% of continence advisers performed all of these functions and even in 2000 the Continence Foundation drew attention to the fact that it still remains a role not universally employed in health trusts. The Audit Commission report (1999) included a survey of all health trusts in England and Wales. Of 171 trusts that responded, whilst 89% reported such a role, responsibilities of the continence advisers involved supporting ever-larger numbers of healthcare professionals and sometimes, inappropriately, the administration of continence supplies. The report concluded that such development was not a cost-effective use of specialist nurse time and emphasised that to educate,
support and advise clinical staff should be their major function. It based these recommendations upon their findings that in health trusts employing continence advisers, community staff were more likely to have received training recently and to be using condition-specific documentation, supporting evidence-based practice.

The findings of this audit reinforce those from the sole research evaluation of the role of continence advisers and their impact upon patient outcomes, conducted by Roe et al (1996). The study found their contribution made a significant difference in the quality of care available. It surveyed over six thousand patients and achieved a 53% response rate and later interviewed 300 patients about their bladder problems: how it was assessed and managed along with their opinion about the quality of their care. Patients of one health authority with a continence advisory service received more appropriate health interventions and education than a second, without a service. It would have been difficult for Roe to make absolute comparisons between the two selected sample authorities areas, owing to differences of structures, staff, geographical and social considerations. A weakness of the method used was to rely only upon historical accounts from patients. No alternative means of checking outcomes were used. Whilst patient opinion is very important in evaluating any service provision, retrospective accounts relying on memory are not always reliable regarding self-reported problems and historical accounts; although it was a consistent approach applied evenly across both areas studied. Objective measures to confirm information such as patient care plans would have enhanced the findings.
2.12 Attitudes towards Continence Care

Continence care is principally a nursing responsibility and therefore nurses’ attitudes can have a huge impact on patients and their families as well as on other healthcare professionals and carers. It is recognised that attitudes as well as the knowledge and behaviour of healthcare professionals are key determinants of the quality and outcome of care for elderly patients with UI, although all elements are intricately connected (Brocklehurst et al 1999). Persistent belief exists among some healthcare professionals that incontinence is inevitable with advancing age and is untreatable. Such beliefs have been identified among nurses (Cheater 1990, Palmer 1995, Penney 1999), doctors in elderly care hospitals (McDowell et al 1994) and among GPs (Clayton et al 1996). Difficulty in identifying and offering treatment for UI is also affected by pre-existing assumptions among both health professionals and elderly patients themselves that disease prevention or health promotion are largely irrelevant to older people, even as secondary or tertiary measures (Killoran et al 1997, Silverman et al 1997). Keller (1999) found 50% of people asked (n=117) believed that incontinence was normal with ageing and inevitable by the age of 85 years. Milsom et al (2001) (n=16,776) found that 48% of respondents did not seek help for this reason. Patients offered assessment and treatment have also been found to have substantial gaps in knowledge about their incontinence problem (Branch 1994, Bignell et al 2000), which in turn can affect their co-operation in treatments and clinical outcomes. Unfortunately, such beliefs and assumptions in the professions, that contribute to health care policies, structures and decision-making, can discriminate against elderly people receiving equitable health care (Killoran et al 1997).
The level of interest among healthcare professionals for the promotion of continence is another important influence upon the effectiveness of care. Perceptions of continence care as an unglamorous, even stigmatised speciality may operate among healthcare professionals. Negative attitudes towards a role in continence care providing assessment and treatment for women under 40 years with UI were found by Abbott (1998). The aim was for nurses to develop a role in the assessment and treatment of UI. He had difficulty in recruiting nurses with an interest in the promotion of continence to represent each of 70 primary health care teams, although new training opportunities were offered. Abbott also reported a lack of interest and commitment throughout the primary health care teams to support the nurses’ role. Their interest was not captured by the opportunity.

Training has, however, been found to have a favourable impact upon attitudes. Cheater (1990) found more positive and therapeutic attitudes towards incontinent patients among nurses who had received post-basic education with statistically significant difference compared to those who had not. Nevertheless, enthusiasm for a role, accompanied by training may still not necessarily lead to the achievement of effective continence care. Button (1998) found that among the healthcare professionals within the GP surgery where clinical guidelines were introduced, other commitments and developments distracted staff from the new continence care initiative so that improvements were not sustained. This highlights the point that factors other than knowledge, attitude and training have an impact upon the success of interventions designed to improve clinical care.
2.13 Resources required for effective continence care

Another major factor affecting service provision is the availability of dedicated time that is supported by managers. Abbott (1998) experienced the problem that many nurses failed to complete training or have the opportunity to practice their new skills because: “many nurses found it impossible to negotiate time away from the practice or health centre”. (Abbott 1998 p11).

Training comprised three days over six weeks spent with the continence adviser and physiotherapist with special interest in continence, plus optional visits to observe clinic sessions. The nurses experienced a lack of dedicated time and financial support to provide relief staff to replace them while undertaking training. Managerial support for training, leadership and a co-ordinated strategy that supports provision of enhanced services in primary care is crucial (Jolley and Wilson 1993, Button 1998) and this is discussed in further detail in section 2.16 concerning the management of change.

Other studies that demonstrated effective patient outcomes have drawn attention to the investment made in preparing staff for new roles, especially the level of training. Whilst Seim et al 1998 and O’Brien 1991 gave brief outlines, Williams et al (1999, 2000) described in detail their enhanced training for five continence nurse practitioners, (who were specifically employed for the role). The nurses appeared to have optimal preparation, equipment resources and no other competing responsibilities. Their training in assessment, and treatment followed a protocol, including skills in physical examination (vaginal examination) and the measurement of post-voiding volume of urine by bladder scanning. Moreover, they appeared to
work full-time in the role, each with a caseload each of less than 60 patients and operated outside usual community roles. Their independence from other competing priorities in their role and workload may have enabled their success, a situation that contrasts with that of individuals who when attempting to improve their practice, by operating on their own initiative, or without the support of the wider professional community, are disadvantaged (Abbott and Hotchkiss 2001).

2.14 Implementing change in professional practice: individual effort

Frequently, improvement in practice relies very much upon the responsibility and effort of individual practitioners; in such events implementation of research-based evidence requires determination and commitment. Whilst some are often capable and keen to do so, colleagues and managers can be resistant, so reducing the effectiveness of some good practice (Humphris and Littlejohn 1996, Mulhall 1999, Rodgers 1999, DoH 2000b, NHSE 1998a, Garside 1998). Luker and Kendrick (1995) indicated that bringing innovation into community nursing practice is particularly likely to require considerable co-operation from peer groups and ratification from managers, so proving difficult for individuals to initiate new practice. Individual practitioners can have little influence and no authority over the practice of colleagues, by themselves.

For individual health care professionals, gaining access to existing research knowledge can be difficult (Firth-Cozens 1999). Substantial skill may be needed to search data sources, perform a review and translate it into practice; the process can be time-consuming (DoH 1999, Mulhall 1999, Eccles et al 2000, Watts 2000). There has been much recent investment to refine mechanisms to disseminate information to
practitioners, particularly via Internet links, with databases such as the Cochrane Library among many others (Watts 2000, Perry 2002). Work of the NHS Centre for Reviews and Dissemination (NHSCRD) in compiling, publishing and disseminating systematic reviews has intended to overcome part of that deficiency (DoH 1995, Watts 2000). Opportunities to use local hospital medical libraries have become more readily available; and since NHS Information Technology (IT) policy (DoH 2000b) access to IT sources has widened. However, Internet and library access via the workplace is not universally available for, or used by community nurses (Luker and Kendrick 1995, Audit Commission 1999, Newman et al 1998). Most recently, Chan et al (2004) found considerable shortcomings in the level of IT provision for community nursing staff and a lower level of skill in using IT among them than among other clinical staff in one trust. Sometimes the multiple sources available on the World Wide Web could seem overwhelming (Perry 2002), and many important journals and reports remain costly to access via this route, although many more are now available electronically as full papers. So, whilst access to and assistance in the interpretation of research data has generally improved, especially via Internet routes, many community nurses appear to remain poorly served and less skilled in using such sources than other professional groups.

Deliberate efforts to enhance development of research skills and improve dissemination of research knowledge into clinical practice have been made through various time-limited projects guided by steering groups. An early approach focused on all members of primary health care teams (Bryar and Bytheway 1996), with research facilitators using supportive rather than directive methods; others have focused on nursing practice specialities (Eve et al 1997, Dunning et al 1999) utilising
project leader roles and clinical guidelines. In the Teamcare Valleys project (Bryar and Bytheway 1996) set in an area of relative health and social deprivation, collaboration between the health authorities and academic centres provided research and development skills training to potentially all members of the primary care teams in the area (155 GP practices). Both facilitative and, importantly, substantial and flexible funding resources were available over a three-year period to assist primary care professionals to explore and identify local health issues and perform exploratory studies and one implementation study based upon identified health need. Although loss of sustainability of the knowledge/skill gains made through time-limited projects can be predicted, in each of the above projects the importance of continuity was considered. In the Teamcare Valleys project, some research facilitators were trained from among existing staff members; others stayed on, so continuing the availability of expertise gained during the project. For the projects carried out by Dunning et al 1999 and Eve et al 1997, the establishment of guidelines for staff was incorporated into local policy.

Acknowledgement of the issues surrounding dissemination and implementation of research evidence has led to an increase in the recommendation for the use of clinical guidelines to support more rapid and authoritative introduction of new evidence into practice and to overcome the issues presented from non-acceptance by individuals, organisational obstacles and limited opportunities to access, analyse and incorporate findings through local initiatives (DoH 1996a, 1999). The next section considers the theoretical and practical use of guidelines in the NHS.


2.15 Implementing change in professional practice: clinical guidelines

Large volumes of research evidence and guidance documents are available for health professionals and policy makers on clinical effective measures, yet many recommendations are not incorporated into clinical practice, so that the NHS fails to benefit from its research investment (NHSCRD 1999, McLaren and Ross 2000). This failing underpins the concept and mandate of clinical governance and one strategy that has arisen is for evidence-based clinical guidelines to become key components to improve clinical effectiveness within NHS trusts. Guidelines have achieved considerable authority (Audit Commission 1999, DoH 1996b), especially through the work of NICE (National Institute of Clinical Excellence) (DoH 1998, Eccles and Grimshaw 2000, McLaren and Ross 2000) although in some areas of practice there has been controversy (McLaren and Ross 2000). Clinical guidelines are:

"systematically developed statements to assist both practitioner and patient decisions about appropriate healthcare for specific clinical conditions"

(AHCPR 1992 pii)

Clinical guidelines are considered a means to focus upon measurable outcomes, reduce inappropriate variations in practice and educate health care practitioners (Williams et al 1995, Cheater and Closs 1997, Thomas et al 1998). Potential benefits of guideline adoption include improved consistency of decision-making and equitable access regarding the provision of healthcare interventions; support for interventions of proven benefit and the removal of obsolete practices (NHSCRD 1994, NHSCRD 1999, McLaren and Ross 2000). (Also see section 2.6, Sources of continence care guidance).
A number of potential criticisms of the use of clinical guidelines have been raised from various sources. A common concern is that they could introduce restrictions to practice. They could suppress clinical curiosity and autonomy, undermine the value of clinicians’ experiential knowledge base, ignore patients’ individual requirements and choice and act as a rationing tool (Muir Gray 1997, Eccles and Grimshaw 2000, Clarke et al 1998, Seers 1998, Rosen 2000). It is unlikely, however, that guidelines would be mandatory, unless their evidence-base can be identified as scientifically robust (Eccles et al 2000). Hurwitz (1998) has reported that in case law the status of clinical guidelines in preference to custom and practice has not been tested and probably would not predominate. Guidelines continue to hold voluntary status among clinicians, but more recently discussions have addressed clearer distinction between “guidance”(non-mandatory) and “guidelines” which are considered mandatory with strict performance measures (DoH 2000a, 2000b). They can however act as strong levers in support of service improvements (Thomas et al 2004).

Certain practice areas are considered particularly suitable for the use of clinical guidelines (NHSE 1996). These include areas where there is a good potential for treatment, to reduce excessive morbidity, disability or mortality; where services are resource intensive; where there are boundary issues across primary and secondary care and especially across different professional disciplines (NHSE 1996, DoH 2000b). The area of the promotion of continence fulfils all of these criteria, which was the reason for guideline compilation in the UK by Button et al (1998). These guidelines identified a systematic approach to the care and management of continence problems and a range of treatments capable of restoring continence or reducing symptoms substantially. The guidelines were designed for use in the
community by a member of the primary health care team with appropriate knowledge and expertise to perform an assessment, diagnose and treat UI. They stated that professionals responsible for the service should be trained to carry out the process of assessment, care, initial treatments and their evaluation (AHCPR 1992,1996, Button et al 1998). The need for the use of continence guidelines was reiterated in ”Good practice in continence services” (DoH 2000a) and both documents suggested a leading role for nurses in providing the service.

Clinical guidelines have a disadvantage in that all aspects of their development are both labour-intensive and time-consuming (NHSE 1996, Muir Gray 1997). This may explain reluctance of NHS organisations to utilise them more readily. Firth-Cozens’ (1999) staff survey in one health region (n=220) reported that multidisciplinary collaboration such as shared guidelines or care pathways were not being developed. Many clinical guidelines are available in a ready-prepared state, through dedicated web sites (w.w.w.guideline.gov) or publications like the Agency for Health Care Policy and Research series. Adopting such guidelines avoids time and effort in compiling them initially (performing a systematic review) and might allow for speedier introduction by busy healthcare professionals; nevertheless, guidelines still require regular evaluation (Hurwitz 1998, Seers 1998, Dunning et al 1999, Button et al 1998, Eccles et al 2000). Moreover, nationally developed guidelines require adaptation for local clinical circumstances and careful integration with local clinical circumstances as they are recognised to be only broad statements. In order to achieve local effectiveness, acceptance and ownership, the valuing of clinical experience and judgement are vital during the process of adaptation from national to local guidelines (Humphris and Littlejohn 1996, Button et al 1998, Seers 1998, Mulhall 1999).
The process of involvement and consultation with all target disciplines in the development/adaptation of clinical guidelines and during implementation can offer particular difficulties for primary care and community services teams (Humphris and Littlejohn 1996, Palmer 1995, Rosen 2000). Abbott and Hotchkiss (2001) described practical difficulties in terms of arranging staff meetings due to workload pressures; the availability of relief staff and geographical barriers such as distances between their locations; as well as lack of management support helping to co-ordinate the process among multidisciplinary professional groups. Guideline compilation method for the current study is presented in Chapter 4 section 4.10 and the guidelines themselves in Appendix B. The process of guideline development and introduction requires time and effort that need recognition and appropriate resources to ensure they become embedded in practice and result in long-term benefits.

Most research into the use of clinical guidelines in all settings, including primary care, has focussed upon medical interventions by doctors (NHSCRD 1994). Conclusions from several systematic reviews were that passive dissemination of advice and guidelines showed little evidence of making a contribution to changing practice (Lomas et al 1991, Oxman et al 1995), especially if the information was complex (Grilli and Lomas 1994) or even when accompanied by educational material (Freemantle et al 1996) or to a small extent by the use of quality assurance strategies (Buntix 1993, Shortell et al 1998). Active educational interventions appeared the most effective strategies among doctors (Davis and Taylor-Vaisey 1997, Wensing and Van der Weijden 1998, Thomson et al 1999). See Table 2.5 Section 2.17.
Knowledge about efficient ways to promote evidence-based practice in nursing in general and community nursing is limited as it has not often been the subject of research (Luker and Kendrick 1995, Button et al 1998, Audit Commission 1999, Dunning et al 1999, McLaren & Ross 2000). Thomas et al (1998) performed the only Cochrane review of guideline implementation in nursing and midwifery and found just 18 studies to include. They concluded that guidelines have a distinct place in supporting the extension of nursing roles, but there was insufficient evidence of effectiveness of any particular strategy that influenced practice change.

However, a few studies have shown that guidelines can be beneficial in improving nurses’ level of knowledge. Two studies in nursing have shown that it is possible for nurses’ knowledge to improve after being offered user-friendly, good practice packs for personal reference, on areas relevant to their practice, for example, leg ulcer care for district nurses (Luker and Kendrick 1995) and continence care (Williams et al 1995) with hospital nurses from care of the elderly wards. Both studies were controlled quasi-experiments. Re-testing of nurses’ knowledge at six or seven weeks after introduction of the packs showed that the levels had improved with statistical significance in both studies. However, it is not known whether the level of knowledge was sustained beyond a few months, or whether improved knowledge had an impact upon the nurses’ practice, as this was not objectively examined, for instance by observation of practice or the examination of patients’ records.

Guidelines by themselves, in all areas of clinical practice are rarely found to be influential in changing clinical practice (Hurwitz 1998) and similarly in the area of the promotion of continence (Button et al 1998). The Audit Commission (1999)
reported that many continence advisers had developed clinical guidelines to support staff in the provision of continence care, but they were not in use. The reason suggested was that implementation strategies and ongoing support did not accompany the development of these guidelines. Button (1998) adopted deliberate strategies when introducing clinical guidelines in the promotion of continence within one primary health care team. Training was given in pelvic examination techniques and other new skills. Button also reported that nurses and GPs were interested in participating in the development of assessment and treatment of patients and the measurement of patient outcomes. However, sustained performance of the guidelines lapsed during the three months duration of the study. Ostensibly this happened because concurrent changes in documentation and computer systems were taking place at the practice, which may have distracted the staff from the initiative, but the research design did not allow more detailed examination of inhibiting factors. Other authors with the experience of implementing clinical guidelines have noticed the interconnected nature of factors within processes of change. Humphris and Littlejohn (1996) have commented how even:

“apparently simple and straightforward changes are set within a complex chain of interdependent units that may block progress” p7.

Another key issue, in addition to a clear implementation strategy is examination of the organisational setting. It seems that whether in apparently small ways or larger systems, the effectiveness of clinical guideline implementation is disrupted if not embedded within corporate structures and plans (Duff et al 1996, Humphris and Littlejohn 1996, Closs & Cheater 1994, McLaren and Ross 2000, Abbott and Hotchkiss 2001). For any implementation initiative or study, such as this study, it seems that planned guideline development and implementation needs to be
considered at three levels and perspectives: the organisation, team and individual practitioner.

2.16 Implementing change in professional practice: organisational factors

Achieving behaviour change is recognised to be complex both for individuals, social groups and organisations; it is influenced by a wide range of factors, which can impede or promote clinical improvements (Mulhall 1999, NHSCRD 1999). Adoption of new practices requires healthcare professionals to both be prepared and encouraged to change established attitudes, approaches and behaviour in their practice. Learning theory and social cognition models can be used to help interpret these factors; understanding how people are influenced, what motivates behaviour change and the most effective ways to promote learning (Moulding et al 1999). These are discussed in section 2.17.

Organisational contexts play a significant part in the change process and are explained here using models of organisational change. Burns (1992) has suggested that all contemporary models of change management stem from Lewin’s forcefield theory (1951), whether applied to group dynamics (Schein 1985), public, or commercial organisations (Handy 1998). Political and legal issues are a major influence upon priorities in NHS organisations (Scally and Donaldson 2000). Characteristics of organisations: including leadership, management, structure and culture have been studied and compared in relation to efficiency and systems for managing change (Kitson et al 1996, 1998, Humphris and Littlejohn 1996, Closs and Cheater 1994, McLaren and Ross 2000, McCormack et al 2002).
The main emphasis within classic forcefield theory (Lewin 1951) is that effective change only occurs when deliberate action is taken to shift the balance of equilibrium. The state of equilibrium is held between various opposing driving and resisting forces, of varying strengths. For change to occur, driving forces need to be strengthened further and resisting forces weakened, so an analysis of their relative positions is required as part of the process of change management. Bennis et al (1985) further elaborated how forces fluctuate constantly in positions of relative power, so highlighting the dynamic nature of factors influencing change. Lewin’s theory presents change as a series of stages. It identifies how unfreezing, from a position where old practices are recognised not to be sustainable, leads to change of practices and then refreezing occurs into new attitudes, policies and practices, maintained through reinforcement and support. Managing each stage of this process requires deliberate actions.

This theory provides a sound structure for the preparation and conduct of this implementation study and an appreciation that organisations are dynamic organisms influenced by multiple factors. Whilst the existence of such diverse influences may impose limitations on certain changes, nevertheless, it is extremely valuable to conduct a situational analysis of the driving and resisting factors within the organisation associated with the focus of the intended change intervention. Internal structures, policies, resources and people comprise the analysis, as well as external documents, policies, legislation and trends. In this way, factors can be identified that already support the initiative; others that could be encouraged through negotiation or utilising the support of colleagues and managers; and obstacles that can be by-passed or not. The stages of change management offer a systematic structure for the design
of the study, which is utilised widely within action research designs (Hart and Bond 1995). See Chapter 3: Research Design.

Forces that have most influence upon organisations require close consideration in preparation for implementing evidence-based practice. Analysis of the relative position of policies and trust strategies to promote or impede such change is a vital part of any situational analysis. Forces arise from both internal and external sources, with many outside the control of the organisation, making the entire change process more complex (Garside 1998). The dominant external force affecting NHS organisations for more than a decade has been corporate governance: dealing with financial economy, organisational performance and non-clinical targets (Leatherman and Sutherland 1998). However, clinical governance reforms have brought accountability for the quality of healthcare in the NHS under statutory regulation and control for the first time (DoH 1998a, 2000b), so that accountability for effective healthcare has gained equal importance and a position as a significant driver for change; relative inertia regarding effective healthcare measures must shift positively (Scally and Donaldson 1998). Measures to improve the effectiveness of clinical practice in the NHS have constantly had to compete for resources with all other priorities and social, political, economic or organisational issues from a relatively weak position (NHSE 1998a, 1998b, Dewar 1999). Moreover, implementation of quality initiatives are often uncoordinated and fragmented (Leatherman and Sutherland 1998, Firth-Cozens 1999), commonly acting as barriers to effective change (Newman et al 1998), further weakening their position within healthcare organisations, reflecting upon the quality of management in health trusts (Scally and Donaldson 1998).
The establishment of clinical governance has provided new opportunities to embed more effective approaches to healthcare provision. It has required re-organisation of services to improve efficiency and to improve skill and experience in many aspects of healthcare. Research funding has been made available in recognition of the need to strengthen the position of quality initiatives, especially the implementation of effective care (Mulhall 1999). Large multi-centred studies (Bryar and Bytheway 1996, Eve et al 1997, Dunning et al 1999) have identified the necessity for research involvement at the strategic level within NHS organisations, whilst allowing issues identified at clinical level to influence priorities. When the STEP project began, it was planned as collaborative work between academic and trust managers at a senior level, and for each of the implementation studies to be embedded with other trust priorities (Ross and McLaren 2000). Bryar and Bytheway 1996 were able to utilise flexible, independent funding to overcome organisational obstacles to local initiatives, as part of its wider remit to address health and social issues in a distinct geographical area of deprivation; whereas later broad studies have been less well funded (Eve et al 1997, Dunning et al 1999). The STEP project studies had access to a small amount of independent funds (Ross and McLaren 2000) used within two studies to relieve staffing shortfall and provide administrative resources.

Substantial quantities of change to NHS structures and processes have taken place in the past seven years, in response to clinical governance reform as well as the restructuring of community and primary care services into primary care trusts (NHSE 1998b). However, the amount and pace of changes have placed a considerable strain upon trusts, even those equipped with strategies to manage change effectively. Reorganisation of services have proved resource intensive; efforts involved have also
impeded developments where existing workforce resources are insufficient, leading
to concerns about policy overload (Dewar 1999, Boden and Kelly 1999, Baker
performance in public organisations is not sustainable in the face of the current
frenetic pace of changes, along with concern that yet further specialisation and
bureacracy may impede rather than promote intended developments (NHSE 1998a,
Baker 2000b, Sorrie 2000). Although these concerns resemble any burden from
major reorganisation in the short term, the substantial impact experienced in health
trusts and upon many aspects of clinical practice, both locally and nationally are
likely to slow progress for single initiatives.

Many organisational issues impact upon the standards of continence services.
Continence services in the UK have been the subject of progressive policy initiatives
in specialist service development since the 1970s, for continence advisers to be
employed (DHSS 1977); recommendations for a clear structure for all continence
services in each health district (Kings Fund 1983, DoH 1991a); service standards for
continence services (SETCAG 1994); recommendations from the Royal College of
Physicians and the Department of Health on causes, management and the provision
of services for incontinence and an audit tool (RCP 1995, 1998, DoH 2000a); and
international guidelines for continence care (AHCPR 1992, 1996). However, poor
performance by health trusts reported in evaluation reports in recent years, indicate
how continence services remain a low priority (Audit Commission 1999, DoH
2000a, Thomas 2004). Early recommendations for continence care and services have
been implemented haphazardly, with occasional retrograde steps due to political or
financial expediency lying elsewhere within healthcare organisations (Swaffield
1995, Clayton et al 1996, Audit Commission 1999). Difficult decisions about priorities must be taken when planning the delivery of health improvement programmes across whole health authority areas and within trusts. Inevitably, those services without mandate are vulnerable to poor support for implementation (West Surrey Health Authority 1999, Thomas 2004).

The current strategic position for continence services by themselves remains relatively weak. Although the “Good practice in continence services” document (DoH 2000a) has updated the continence service agenda (DoH 1991a), it has no mandate (Thomas 2004). Successful outcomes lie in the association of recommendations with major policy developments, including the mandatory National Service Framework (NSF) for the Care of Older People (DoH 2001). This has advised on requirements for equitable and integrated assessment services, including continence services to be implemented by April 2004. Within primary care services, a new framework for planning and delivering nursing services explicitly involves nurses in developing new roles and delivering the NSF agendas (DoH 2002a). This involves comprehensive health assessments including continence, to be offered to any elderly person who needs social or health care.

Escalating costs are a serious issue in the provision of continence services. Pressure on costs occurred from the reintroduction of Value Added Tax (VAT) on continence products (Audit Commission 1999), which immediately led to cost-containment measures being implemented in continence services. This issue was the subject of significant lobbying of government ministers by continence advisers through the Royal College of Nursing and other groups (Thomas et al 2004), with the eventual
removal of VAT from continence products (Continence Foundation 2000). Although there is encouragement for more efficient identification of patients with bladder problems (DoH 2000a), this is likely to result in more costs to primary care if more patients are treated there, with additional costs arising from costs from referral to secondary urology or uro-gynaecology departments. Decisions about such priorities need to be debated and integrated at Strategic Health Authority level and/or by commissioning groups within primary care trusts, since there is a clear need to co-ordinate policies governing health improvement programmes for primary and secondary care (DoH 2000a). The integration of continence services across all health and social services presents even further challenges (Thomas 2004). Integration would mean a shared strategy, standards for assessment and services for new and existing clients both in residential care and receiving home care services commissioned by social service departments, supported by requirements in the Care Standards Act (DoH 2000c). Co-ordination and co-operation at the most senior level within organisations may have the most influence upon the operational success of policy developments. The effectiveness of large-scale implementation projects (Eve et al 1997, Dunning et al 1999) depended most of all upon being included as one of a number of important current activities and upon being embedded within the culture and structure of the organisation, rather than an addition to the current agenda.

NHS organisations that have systematically participated in quality initiatives are also likely to be effective in associated ways, such as the introduction and management of innovation (DoH 1999, Baker et al 1999). NHS trusts that make systematic use of quality assurance and clinical audit procedures that are familiar to staff and used to plan and assess progress are also likely to value education, research and the sharing
of best practice. They are also likely to have deliberate strategies for procedure and policy changes and are likely to support new developments. Such features identify trusts as learning organisations (DoH 1996a, Garside 1998) (See Table 2.3). Kitson et al (1996) and Humphris and Littlejohn (1996) reported better success in implementing guidelines in areas of nursing practice within such learning organisations, than in organisations where evaluation systems were weak, which was a predictor of poor performance in implementing significant change. Qualities of a learning organisation are widely regarded as essential for the effective dissemination and implementation of evidence-based practice (NHSCRD 1994, Haines and Jones 1994, NHSE 1998a, Thomas et al 1998, Cheater and Closs 1997, Audit Commission 1999, Hackett et al 1999, DoH 2000b, McCormack et al 2002). An evaluation of the extent to which qualities of a learning organisation exist within the research setting can help to identify how the organisation and healthcare staff are familiar with concepts behind quality improvements and their capacity to cope with practice development.

<table>
<thead>
<tr>
<th>Leadership and willingness to negotiate collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepts accountability</td>
</tr>
<tr>
<td>Makes systematic use of quality assurance and clinical audit procedures</td>
</tr>
<tr>
<td>Uses deliberate strategies for procedure and policy changes</td>
</tr>
<tr>
<td>Flexible and capable of incorporating new clinical evidence</td>
</tr>
<tr>
<td>Values education, research and the sharing of best practice</td>
</tr>
<tr>
<td>Individuals and teams are receptive and able to use new research</td>
</tr>
</tbody>
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(NHSCRD 1994, DoH 1998a, NHSE 1999)

**Table 2.3 Qualities that identify a learning organisation**
One quality of learning organisations is the use of quality assurance models to evaluate service provision and support the systematic management of change. Structured models have been applied to some healthcare organisations, adapted from business settings (Nabitz and Klazinga 1999, Naylor 1999, Jackson 2000). The most influential model originated as a business approach to appraise the whole of an organisation, so-called Total Quality Management (TQM), proposed by Deming in the USA in the mid 1940s (Deming 1991). The concept and principles have since evolved into other models such as a Business Excellence Model adopted across Europe (European Foundation for Quality Management 1999, or EFQM 1999) (see Figure 2.1).

![Business Excellence Model](image)

**Figure 2.1: Business Excellence Model (European Foundation for Quality Management 1999)**

The process of quality evaluation that the EFQM model describes is cyclical, called a quality or audit cycle with 50% importance attached to the circumstances that enable the change to occur and 50% of importance attached to the results and innovation.
achieved (see Figure 2.1). The components all have a percentage level of importance given. So that leadership contributes 10% policy and strategy 9% and so on. The main point is that no one element dominates and it requires leadership, receptive participants, supported by policy and strategy to make the change and processes through which to achieve it. Equally important are the outcomes. Monitoring of those standards leads on to adjustments to further improve outcomes, completing the cycle. This model has been described as successful in industry, as a strategy to get the whole organisation working to its maximum effectiveness and efficiency; adopting innovative practice after review or audit of all aspects of their activity; achieving aims to review and adapt in order to respond to and meet the requirements of the client (Rosen 2000, Jackson 1999). It offers a valuable framework for the process of organisational change management in this study.

Another model with a history of having been used in healthcare settings is that of Donabedian (1980) (Table 2.4). Although less detailed than the EFQM model, Donabedian’s Industrial model identifies the basic components to support change within industrial settings, although it is linear and one-dimensional and so limited in scope. Nevertheless, the prediction from this model, as from the EFQM model is that sound structure and appropriate process will lead to successful outcomes.

<table>
<thead>
<tr>
<th>Structure:</th>
<th>Physical facilities, resources, documentation of procedures, policies and staff guidance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process:</td>
<td>Actual delivery of service, monitoring, evaluation and actions that respond to suggested change.</td>
</tr>
<tr>
<td>Outcome:</td>
<td>Measured actual results or effects of service delivery.</td>
</tr>
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</table>

Table 2.4: Industrial Model by Donabedian (1980).
However, Garside (1998) suggested that whilst such structured approaches are appropriate for discrete organisational targets, by themselves all quality approaches are inadequate to promote changes in the complex arena of the entire organisation or where improvements to clinical practice are intended, because they do not take account of culture and behaviour which present other challenges (DoH 1998a, NHSE 1998a, Garside 1998, Hackett et al 1999, Baker 2000a, Rosen 2000).

The structured use of quality assurance systems is not universal in the NHS (Garside 1998). For example, the Audit Commission (1999), reporting on the standard of leg ulcer management and continence services by district nursing services, identified that the main cause for the failure of implementation of evidence-based practice in these services in the UK to be fundamentally an issue for healthcare organisations, rather than individual practitioners, This is very much in line with both commentary (Muir Gray 1997) and policy statements (DoH 1998a, DoH 2000b). There was little evidence, the report stated, of the examined health trusts using audit measures to review clinical practice. The solutions it highlighted concerned organisational infrastructures rather than individuals. Recommendations included the need to provide training, improved documentation and for the use and audit of clinical standards. Inappropriate use of the skills and time of specialist continence advisers was also an issue for further examination by organisations.

Leadership is identified as a vital component for new effective healthcare initiatives to progress, as shown in the EFQM model (Figure 2.1). It occupies one fifth of the enabling components. This was confirmed in the FACTS and PACE projects (Eve et al 1997 and Dunning et al 1999 respectively), which focused upon case studies of
large-scale clinical change projects in multiple service settings in the NHS. Leadership support and influence, both in driving the individual projects and at a senior level, was needed to drive the change and to remove restraining factors such as workload, poor resources, gate-keeping by dominant hierarchies and complex or poor communication channels.

Many potential confounding factors exist to obstruct the co-ordination of continence care approaches by widescale organisational change within healthcare organisations providing primary and community health services (Thomas 2004). Perhaps recognising this difficulty, models of service development suggested by “Good practice in continence services” (DoH 2000a), included two (out of three) possible models for continence service development that focussed upon nurse roles that were more independent of existing organisational structures and possibly competing issues and priorities experienced by existing healthcare staff.

One of the models was piloted by Williams et al (2000), in which new posts of continence nurses were created. They reported clinical successes (discussed earlier). In terms of management, the pilot study appeared to be well resourced (education for the nurses, assessment equipment, limited caseload) and in particular, it was led and managed independently of other organisational structures. Therefore, with a small group of nurses to provide the evaluated service, certain organisational obstacles regarding training and encouraging individuals may have been bypassed. Williams et al aimed to demonstrate their value and planned for an economic evaluation of their project, but one potential outcome is that they will find that the number of link nurses/specialist nurse practitioners that are needed to serve one trust is far more than
five. If, as the Audit Commission (1999) reported, continence care is currently one of the five main reasons district nurses see patients, it would take a large workforce of new specialist nurses to undertake all of the nursing visits required. It is also questionable whether further specialisation of community nurse roles is cost-effective. A greater role in the delivery of the NSF agendas is being demanded of community nurses includes integrated assessment by community nurses of older people. Such assessments include and require skills in continence assessment, underpinned by an appropriate knowledge base to perform them adequately. Targeting education at community nurses would therefore be more worthwhile, in my view, than fragmenting continence care into too discrete tasks, by constructing yet new roles and under-using the skills and abilities that community nurses already have.

Another model suggested that all patients be referred to a specialist continence service, staffed presumably by continence advisers. It is known that where continence advisers operate as part of community services, they seem to offer the most efficient means to treat patients with UI. Indeed, Roe et al (1996) found that in health authorities where continence advisers operated, patient outcomes were improved and more rehabilitative than in health authorities where a continence adviser was not employed. However, in reality, it has long been discussed that continence advisory services are overstretched, posts not universally in place and they are sometimes unable to perform their main educational and clinical roles (Rhodes and Parker 1993, Roe et al 1996, Clayton et al 1996 Audit Commission 1999). Moreover, they are responsible for overseeing services to residential and nursing homes as well as in the community and although many would benefit from
running clinics and providing education for healthcare professionals, they are unable
to do so for political and budgetary reasons (Clayton et al 1996, Audit Commission
1999). Clayton et al (1996) reported the closure of continence clinics and the loss of
continence advisory posts during the period of their economic evaluation of services.
Organisational priorities within those trusts switched to rationing and other short
term cost containment measures. This point seems to indicate the vulnerability of
continence services as they are often considered to be a service of low priority.

The last model suggested improvement in the level of education among all primary
health care professionals. Known issues surround the application of this model, as it
is the one most in use. As discussed in previous sections, adequate education,
training, motivation and sustained effort are requisite among professionals for the
identification, assessment and treatment of patients with UI. Moreover, healthcare
professionals performing such roles are under pressure from competing
responsibilities that often take precedence. Further complications arise because
primary health care team members are multidisciplinary and managed separately, so
management of one area of practice development becomes more difficult to co-
ordinate. Although all disciplines are now incorporated into primary care trusts at the
level of the employing organisation, community nursing services remain separately
structured from GPs, and physiotherapy services may or may not be available at
primary care level. However, this model has a more realistic function for the future
of service development, in my own view.

Firstly, in primary care, most trusts have the existing support of continence advisers,
who have a range of skills to teach and support generalist nurses and doctors in
primary care, which should be their main function, often with links to secondary care, such as local urology nurse specialists and clinic facilities. Secondly, continence assessment, treatment and care is within the scope and practice of many members of the primary care team (Pearson et al 1995, Moore and Fader 1999, Audit Commission 1999): physiotherapists in primary care can have an important role in providing clinic-based treatments, although these may currently be under-utilised; community nurses operating with protocols have been able to provide assessment and effective treatments (O’Brien and Long 1995); GPs have been involved in providing treatments for UI; well-established links exist within multidisciplinary primary care teams who often work co-operatively, so that team members working together are capable of providing a complete range of skills. Efforts to strengthen and improve such skill would help them to perform even more effectively. There is therefore scope for community nurses to maximise their existing role in detecting and managing UI and to provide treatments through existing community nursing services and multidisciplinary primary care teams; a solution proposed in order to capitalise upon what service provision already exists and to strengthen it (Audit Commission 1999).

Thirdly, with the structure of primary care trusts linking the functions of both GP services and community nursing under the same authority is beginning to provide opportunities for shared training and potentially a better co-ordinated approach to continence care through the use of shared clinical guidelines to improve continence care for patients.
Lastly, GPs and community nurses are the first point of contact for people who report symptoms and people over 65 years comprise the age group who have most contact with primary and community care services. Along with disabled people this age group are most vulnerable to UI (Killoran et al 1997, Perry et al 2000, Roe and Doll 2000, Milsom et al 2001). District nurses in particular, visit a quarter of all people over 75 years, as well as seeing patients with disabilities and health problems (Pearson et al 1995), for whom incontinence is a secondary problem; providing continence care is one of the five main roles they perform (Audit Commission 1999). Members of the primary health care team are therefore in the best position to identify patients with UI and are well placed to help the majority of those experiencing UI who live in the community. A range of strategies are needed to strengthen existing roles. These include sound management of education opportunities, support of staff by managers to develop their role and skills and encouragement of primary care teams to improve their skills and knowledge. The next section concentrates upon individual behaviour change in healthcare practice.

2.17 Implementing change in professional practice: individual and group change management

A wide literature on behaviour change from the social sciences, marketing and health promotion can inform strategies for influencing and bringing about change in professional healthcare practice (Moulding et al 1999). The bulk of this work has focussed on medical practice, although one systematic review on implementing clinical guidelines in nursing (Thomas et al 1998) was included in the review of forty-four systematic reviews concerning changing professional behaviour by The
NHS Centre for Reviews and Dissemination (NHSCRD 1999). Table 2.5 summarises the major systematic reviews and their findings.

Behaviour is shaped by our attitudes, beliefs and intentions (Moulding et al 1999). The social influence model proposes that perceived benefits and barriers such as costs, the influence of attitudes of important peers and belief in one’s ability to perform the behaviour are particularly powerful drivers/inhibitors that require attention when planning implementation strategies (Conner and Norman 1996). Hence, the influence of opinion leaders has a valuable place in changing practices, through strategies that employ contact with valued peers, experts or trained workers (Thomson et al 1999), group education (Bero et al 1998), or both, or targeting opinion leaders within existing groups (Wensing and Van der Weijden 1998). Changes most likely to be adopted are those compatible with existing staff attitudes and practices and which characterise a high relative advantage to adopt new practices, lack complexity, and have the option for being trialed before adoption (Grilli and Lomas 1994, Oxman et al 1995). Abbott and Hotchkiss (2001) identified that personal advantages need to be identified individually, as these may assist staff in coping with change.

The amount of time needed to introduce change cannot be underestimated as the pace of change also has a strong influence; moreover, a variety of levels of support may be needed, especially for skills-based learning developments; but these and the time necessary to fulfil them are often underestimated (Dunning et al 1999, Abbott 1998). Acceptance of change occurs in stages and takes place over time. The diffusion of innovation model (Rogers 1983), perhaps the most developed stage theory applied to
individuals, suggests four stages from knowledge: learning about the new; persuasion, in which the person develops positive or negative attitudes towards it; testing the acceptability of the innovation in a decision stage; and in the final stage they adopt or reject the innovation. The maintenance of change is not explicitly included in Rogers’ theory, however Rogers and Shoemaker (1971) identified five categories of participants in adopting change: early innovators; early adopters; an early majority; a late majority and late adopters. These authors indicated that the participants are likely to be at different stages at any one time and to differ in the degree to which they are prepared to change. This factor highlights the importance of targeting specific groups, working closely with them to find out the group’s barriers and drivers for change and influence of local circumstances.

Three commonly used strategies for effecting change in others, described by Bennis et al (1985), respond to the power of the change agent and the amount of resistance expected among the recipients. Rational-empirical strategy presents research as factual evidence to support change. Communication of reasons for the change are essential components of the process (Marquis and Huston 2003). The experience of introducing clinical guidelines has indicated that involving participants fully at all levels of change has a clear benefit. Opportunity to engage in full discussion about all relevant evidence and local service issues is essential. Debate and review are important features of ownership and acceptance (Haines and Jones 1994). Normative-reeducative strategy utilises group processes and peer pressure to socialise and influence people to change, assuming that people are more easily influenced by others, than by facts. Power-coercive strategy is based upon the use of legitimate authority/sanction by the change agent. Such an approach assumes that
people are set in their ways and will only change when rewarded or obliged to change. Often a combination of strategies are the most useful to effect change successfully (Marquis and Huston 2003). Incremental change, open communication and the collaboration of staff in decision making are most likely to address the common response of resistance to new practices, especially if, by then added pressures are placed upon existing practices, work relationships and staffing levels (Sullivan and Decker 1988, Palmer 1995) or if local ownership of national recommendations does not occur (Haines and Jones 1994).
Environmental contexts of behaviour provide cues and reinforcements that are central to encouraging and maintaining behaviour. Learning theory, such as operant conditioning, and action learning methods explain how behaviours followed by positive consequences or reinforcement have the tendency to increase whilst

### Table 2.5: Systematic Reviews of Change Interventions for healthcare professionals

<table>
<thead>
<tr>
<th>Study Authors</th>
<th>Year</th>
<th>Number of studies reviewed</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davis and Taylor-Vaisey A</td>
<td>1997</td>
<td>99</td>
<td>Studies of continuing medical education Compared interventions. Successful interventions included educational outreach, opinion leaders and reminders. Those most likely to succeed were multi-faceted and those that assess potential barriers and use the information to plan interventions.</td>
</tr>
<tr>
<td>Grilli and Lomas</td>
<td>1994</td>
<td>23</td>
<td>Compliance was lowest for complex guidelines.</td>
</tr>
<tr>
<td>NHSCRD</td>
<td>1994</td>
<td>91</td>
<td>Guidelines can change practice. They are most likely to be effective if they take account of local circumstances, are disseminated by active educational interventions and implemented with patient-specific reminders.</td>
</tr>
<tr>
<td>Oxman et al</td>
<td>1995</td>
<td>102</td>
<td>Where dissemination only occurred there was little or no change. Complex interventions were effective, but incurred only moderate effects. A range of interventions are effective sometimes, but none all of the time.</td>
</tr>
<tr>
<td>Wensing and Van der Weijden</td>
<td>1998</td>
<td>61</td>
<td>Guidelines introduced with multi-faceted interventions are most effective, but may be more expensive.</td>
</tr>
<tr>
<td>Thomas et al</td>
<td>1998</td>
<td>18</td>
<td>Only review of guideline implementation in nursing, midwifery and paramedical professions. Insufficient evidence to determine the effectiveness of different strategies. A number suggested that guidelines could be used to support the extension of nursing roles.</td>
</tr>
<tr>
<td>Freemantle et al</td>
<td>1999</td>
<td>11</td>
<td>Dissemination of educational material about clinical guidelines, including audiovisual material caused no significant improvement.</td>
</tr>
<tr>
<td>Thomson et al</td>
<td>1999</td>
<td>18</td>
<td>Educational outreach is a promising intervention, especially combined with social marketing. Use of opinion leaders have a mixed effect.</td>
</tr>
<tr>
<td>Buntix</td>
<td>1993</td>
<td>26</td>
<td>Audit and feedback have a widespread use but minimal effects noticed.</td>
</tr>
<tr>
<td>Shortell et al</td>
<td>1998</td>
<td>41</td>
<td>Clinical applications of total quality management strategies were effective in producing change during uncontrolled studies, but not in randomised controlled trials (RCTs).</td>
</tr>
</tbody>
</table>
behaviours followed by negative consequences or withdrawal of reinforcement (reward) are likely to decrease (Moulding et al. 1999). Effectiveness of reinforcing factors depends, however, upon their desirability and the motivation of the individual to gain them. Applied into work settings, training opportunities and resources provided by the wider organisation, as part of a change initiative, help to build competence, more positive attitudes, thence change in beliefs and behaviour of individuals, enhanced by their involvement in the process, which may in turn strengthen support for further social and environmental change (Stokols 1992). This approach has a tendency to place the recipient as passive, responding to external sources of feedback, however when applied through techniques such as audit and feedback, prompting and the use of reminders and material rewards, can have a place in influencing change (Thomson et al. 1999, Moulding et al. 1999).

More interactive learning theories overcome some of the criticisms of passivity identified above; the importance of identifying the gaps in knowledge and skills is highlighted. Green et al. (1980) found, in the field of health promotion not only a need for an assessment of learning needs but also that the impact of education was proportional to the degree of active rather than passive participation of those learning. Lomas (1991), in a review of nineteen studies found little evidence that passive dissemination of recommendations for practice resulted in behaviour change. Similarly, Davis and Taylor-Vaisey (1997) and Grol (1997) found active involvement and interaction with the participants, to address gaps in skill and knowledge, were more successful than distribution of printed information via journals or from professional organisations. Within nursing and midwifery, Thomas et al. (1998) concluded that educational interventions were beneficial for nurses,
especially when a combination of educational strategies were used, but did not identify which were most effective. By contrast, Grimshaw and Russell (1993) were more certain and identified that targeted seminars and educational outreach visits were most likely to be successful in changing behaviour for physicians. It appears overall that education needs to be interactive and participatory, responding to gaps in knowledge as well as information-giving, rather than using a didactic approach or blanket information, to maximise effectiveness. Safe and effective application of guidelines is unlikely without the active collaboration of practitioners who understand their basis as well as the circumstances of the patient. (Muir Gray 1997).

Innovation may also arise at the operational level, identified by a problem-solving approach, an important element of action research approaches. Motivation to change may originate from an expressed problem and the search for innovation in order to solve it at the clinical level (Mulhall et al 1998). The Teamcare Valleys project evaluated by Bryar and Bytheway (1996) highlighted multiple benefits from deliberately addressing issues identified at clinical level, in that local healthcare professionals develop focused skills and address local health issues, so potentially achieving targeted health improvement. Whilst this approach is meaningful for individual or local practice, if it is not acknowledged in policy, by managers, or given access to resources, such innovation is likely to be unsustainable. This factor was also highlighted in the Teamcare Valleys project, which reported equitable access to the project for all primary care team members, including midwives and nurses, whereas more often any focus upon “the primary care team” refers mostly to resources and ideas generated for general practitioners only. However, providing
medical education and research may have been advantageous for funding purposes in this project.

The review by the NHS Centre for Reviews and Dissemination (1999) concluded that a range of interventions has been found to be effective in implementing change among healthcare professionals, but not in all circumstances. Therefore employing multiple techniques may promote change, although may be more costly to introduce and utilise (NHSCRD 1994, Oxman et al 1995, Wensing and Van der Weijden 1998, Moulding 1999, Mulhall 1999). It is not clear from systematic reviews of literature what the most effective strategies are for the uptake of new practices among nurses. Currently we must rely upon findings from medical studies that may not transfer directly to other healthcare professionals who have different educational preparation and management structures (Thomas et al 1998). However, a range of strategies have been identified that also occur in individual implementation studies in nursing (Williams et al 1995, Luker and Kendrick 1995). Open communication with all stakeholders throughout the development phase is crucial. Their involvement in decision making and planning from an early stage has been found to be a key feature of effective implementation strategies (Kitson et al 1996, Muir Gray 1997, Marquis and Huston 2003). However, more understanding of the effective methods to implement evidence-based practice into nursing settings is needed (Eve et al 1997, Dunning et al 1999, Hamilton and McLaren 2000, Redfern et al 2000, McLaren and Ross 2000).

2.18 Summary of Key Issues from the Literature
Urinary incontinence is a significant problem in the UK population for which early identification is beneficial as UI responds to a range of effective treatments and management strategies. However, ignorance among the public and healthcare practitioners contributes to poor reporting and identification of the problem. Appropriate assessment and care is frequently not offered, especially for elderly people, indicating lack of knowledge, education, and experience of rehabilitative approaches among healthcare professionals. Endorsed by policy, clinical guidelines, and some practice, nurses are able to provide focused continence care in community settings and achieve effective treatment and management outcomes, when supported by appropriate training and the key role of continence advisers.

Discrepancy between actual practice and the most effective ways to manage health problems is a fundamental issue across the NHS. Failure to incorporate research findings into clinical practice and the need for improved coherence of quality initiatives therefore underpin the concept of clinical governance. One initiative is the use of clinical guidelines as authoritative, educative means to implement effective healthcare practice and overcome associated complexities of identification, dissemination, and implementation of research findings. However, obstacles as well as levers to their implementation affect NHS organisations, clinical teams, and individual practitioners; for continence services, influencing factors include escalating costs, yet being regarded as a low priority area compared to other healthcare issues.
Deliberate educational, structural and leadership strategies to manage and sustain changes are needed, taking into account the context, culture and priorities of the organisation, along with resources, knowledge requirement, attitude and level of interest among professional practitioners. Literature concerning implementation of guidelines and managing practice change is less well represented for nursing than for medical practice, however, incremental change; open communication and active collaboration with stakeholders; combined, interactive educational strategies; strong leadership of the change process; and for the change to be embedded and coherent with organisational objectives are most consistently identified as effective factors.

2.18 Conclusion

Continence services, like many areas of healthcare practice in the UK are not consistent in providing effective or evidence-based care. There is a failure to identify, assess and treat UI in the community, especially among elderly people who are one of the most vulnerable groups. On one hand this failure can be attributed to a lack of professional interest, education and knowledge and to the assumption commonly held by the public and many professionals alike, that UI is not treatable. On the other hand many NHS organisations have not responded to health policy advice to establish infrastructures and practices that support the promotion of continence, with the exception of the development of the role of continence advisers. Such inaction may be influenced by the relatively low priority status of non-urgent care services and a lack of mandate to most of the continence-associated policies for NHS trusts.
There is a range of effective treatments and management strategies for UI that can substantially reduce symptoms and improve the quality of life for patients. Some primary care and community nursing services have demonstrated that they are capable of effectively and promptly providing much of this care, as long as the healthcare professionals doing so have appropriate knowledge and experience. Sources of training in enhanced skills in assessment and treatment have been shown to be available from continence advisers, physiotherapists and urology services. Community nurses have the capability for such a role, allied to existing responsibility for providing most continence care in the community. However, appropriate education and training is an essential component in any plan for such practice development.

Clinical governance reforms have sharpened the focus of health trusts upon responsibilities for effectiveness and quality of health services, partly through mandatory NSFs and recommendations for the use of clinical guidelines with the intention of improving the coherence of initiatives to implement evidence-based practice. With this driver for improvement, along with a large number of health policy documents about the development of continence services and strategies to provide effective continence care, increased motivation within forward-thinking NHS organisations is creating more opportunities to support practice developments among healthcare professionals. However, support at all levels of the organisation is essential for any trust-wide initiative. Guidance from quality assurance models that highlight the function of leadership and other essential components, along with analyses of learning organisations, valuing education, and research-mindedness
support a systematic approach to the management of innovation. Principles of Action Research as a robust strategy to support practice development, fits well into this framework.

Clinical guidelines can promote increased nurses’ knowledge and support them in enhanced roles. The value of guidelines depends upon the quality of their underpinning evidence, their process of development and the effectiveness of their implementation. Critical to the process are the involvement and inclusion of clinicians in the whole process and the use of interactive methods to promote guidelines, as employed in action research methodology. However, the most efficient ways to introduce and sustain practice changes among healthcare practitioners to provide effective care are not well understood and most research to evaluate different methods and strategies has been carried out in medical practice. Far less is understood about ways most appropriate for nurses and especially little research has been carried out with community nurses. This study, presented in the following chapters, aims to contribute to that knowledge and to examine how wider health policy and implementation strategies can be applied to frontline services that would benefit from becoming evidence-based.
Chapter Three

Methodology, Design and Theoretical Underpinnings

3.1 Introduction

This study was part of a large, multi-centre project comprising nine separate studies, entitled the South Thames Evidence-based Practice project, known as STEP (Ross and McLaren 2000, Bignell et al 2000). The broad aim of STEP was to implement and evaluate evidence-based practice using a similar multi-faceted approach across nine geographically distinct clinical specialities in service settings within the former South Thames Region, followed by an independent evaluation within and across all project settings (Redfern et al 2000). The Regional Executive selected study sites after examining proposals put forward by joint university/trust applicants and provided funding for the STEP project.

The purpose of this particular study was to implement and evaluate evidence-based practice development in the promotion of continence among elderly people cared for by community nurses. Its specific aim was to lead the development and implementation of clinical guidelines and to evaluate their impact upon district nurses, health visitors, nurse visitors for the elderly and registered general nurses within one community health trust. This was to be achieved through critical examination of the practice, role, knowledge and attitudes of the community nurses before, during and after the development and implementation of clinical guidelines, supported through a variety of educational interventions.
A quasi-experimental design was employed to compare outcome measures between community nurses before and after the intervention (development and implementation of guidelines supported by educational interventions) and between an implementation group and a control group. The implementation group comprised the community nurses in two of the four distinct geographical localities within the Trust. The nurses in the remaining two localities were the control. The control group did not receive guidelines until the last two months of the study. This followed data collection through a nurse questionnaire to examine role, knowledge and attitudes. A document survey comparing use by the implementation and control groups of the new guidelines over two months was then carried out (Figure 3.1).

The methodological approach was required to be consistent across all nine studies of the STEP project and therefore gave limited flexibility to the study design. The quasi-experimental design utilised an audit framework, comprising three phases: Phase One: situational analysis, Phase Two: intervention and Phase Three: evaluation. Important features of action research methodology were incorporated in the overall design of STEP. Firstly, the active role of the researcher in the facilitation and leadership of the studies and secondly, how a cycle of activities during each study phase informed and shaped the next phase. Some activities inevitably overlap, such as the development and piloting of guidelines (McLaren and Ross 2000).

The nine STEP studies were intended to demonstrate ways to bridge the gap between theory and practice, using the context of clinical governance strategies for assessing, disseminating and implementing research evidence into clinical settings (Mulhall et
al 1998). In order to achieve its goals, the active management of change became the dominant feature of this study; therefore it is presented as a quasi-experimental design using principles of action research (see Figure 3.1). In their typology of action research Carr and Kemmis (1986) use the term “technical action research” and Hart and Bond (1995) use “experimental-organisational” where a quasi-experimental design is utilised.
Situational analysis
Baseline measures from:
- Organisation:
  situational analysis
- Data from community nurses
  Questionnaire (n=102/244)
  Interviews (n=30)
  Focus groups (6)
- Document survey of patient assessments (n=41)

Design of interventions
Content based upon:
- identified need
- research evidence

Develop clinical guidelines for promotion of continence.
Feedback findings from Phase 1

Pilot guidelines

Educational interventions

Implementation of clinical guidelines

Evaluation of guidelines
Repeat nurse questionnaires (n=244)

Use of guidelines across all localities
Repeat document survey of continence assessments (n=109)

Implementation
(n=50/140) and
Control groups (n=52/104)

Implementation Group (n=140)

Implementation
(n=77/140) and
Control groups (n=91/104)

Figure 3.1 Outline Structure of the Study
At the outset of the STEP project the quasi-experimental design was the dominant feature and the action research elements in the overarching design were a subsidiary part, but during the course of the studies modifications to designs became necessary in five studies including this one, to respond flexibly to the variability of specific clinical and organisational contexts (Perry 2002, 2003). Qualities of adaptability and leadership among the researchers/practitioners also became a critical feature (Ross and McLaren 2000, McLaren et al 2002). Whilst it is necessary in the conduct of any empirical research to respond to contextual issues, it is a fundamental principle of an action research approach to be specific to the context because all characteristics of the setting are anticipated to be different in each study (Waterman et al 2001).

It might be speculated that if action research had been the dominant approach for the whole STEP project at the proposal stage, its funding application might not have been successful, as, at that time there were no large-scale studies using an action research methodology (Ross and McLaren 2000). Waterman et al (2001) in a systematic review of action research studies found them less favoured by major funding bodies compared to studies with more conventional, mainstream designs. However, more recently Smith (2004) has suggested that in principle there has been a shift in favour among funding bodies towards applied research approaches that offer an alternative to hypothesis-testing linear studies.

The advantage of using a quasi-experimental design in this study was that it applies experimental rigour in real life settings by the use of some research controls. Polit et al (2001) suggest that the choice of a quasi-experimental design is practical for studying people and in a nursing setting is both appropriate and powerful. By using
either a comparison control group or random selection, the possibilities of identifying the cause and effect of changes are strengthened and alternative reasons for the findings can be limited. Marked differences in practice that occurred between groups after an intervention could then be attributed to that intervention, where other circumstances are similar, and the findings may also be generalised to other such environments. In this study, a control group was used to show that, apart from the intervention, in other respects, the experience of the nurses across the whole Trust was expected to be similar, so that any significant changes in the knowledge, practice and attitudes of the community nurses at the evaluation may be attributed to the intervention, if there was no comparative change in the control group.

This study used a variety of data collection methods, which included questionnaire, document survey, interviews and focus groups. Data were analysed using SPSS 10.1 statistical software for quantitative analysis and Nud*ist 4 software for qualitative analysis. The use of multiple methods and multiple sources of data permitted triangulation to enhance the robustness of conclusions reached from the data. The research design and theoretical underpinnings for the methodology are explained in this chapter and the following chapters present the three phases of the study. For Phase One the methods are described in Chapter Four, results in Chapters Five, Six, discussed in Chapter Seven. Phase Two, the intervention is described in Chapter Eight and Phase Three is presented in Chapter Nine. Discussion of all Phases takes place in Chapter Ten, followed by conclusions from the study in Chapter Eleven.
3.2 The STEP Project

Although each study in the STEP project was conducted independently (Ross and McLaren 2000), standardisation of the overarching research design and other elements of timescale, implementation methods and selected process criteria was an important feature of all the studies participating in the STEP project, in order to allow for comparative evaluations to be made through a separate independent evaluation (Redfern et al 2000). The shared timescale for the studies was 27 months and comprised three phases: situational analysis, implementation; and evaluation. The suggested design was quasi-experimental. There were both benefits and restrictions from participation in the larger project.

Benefits from being a part of a large project included an initial training programme in research project management provided for all researchers, with ongoing meetings every two months to discuss aspects of the work, for mutual support and to meet with the academic leads for all studies. Support for each researcher in the individual studies was provided by an academic leader and a clinical leader, both of whom were members of a study steering group within each trust. In this study, the steering group comprised the academic leader, a senior lecturer at the local university; the clinical leader who was one of two members of the Trust Executive; two Heads of Departments within the Directorate of Clinical Practice: for audit; and research and development; and a general practitioner. The group met at two-three month intervals to receive a report from the researcher, to discuss progress and any issues affecting the study. It was considered important that membership of the steering group
included representation at the highest level within the Trust in order to promote influential support and a high profile.

Restrictions were imposed by the overall STEP project design, which emphasised measurement of outcomes, but provided less scope to examine the complex processes of change management. A limited timeframe within which the studies should report was another difficulty, along with pressure from added obligations upon the researchers for frequent reports and a requirement to make regular high profile presentations. Researchers were also interviewed quarterly as the subjects of the STEP external evaluation project (Redfern et al 2000).

The STEP research design intended that at Phase One practice would be measured against evidence-based guidelines before their implementation. Guidelines would be implemented at Phase Two and practice measured again at Phase Three (See Figure 3.1). The STEP study described in this work was a study of the promotion of continence among community nurses.

3.3 The Promotion of Continence Study

The context and background literature supporting the need for this study has been presented in Chapter Two. The study was driven by two key questions.

Research Questions:

- Are community nurses able to provide a key role in the promotion of continence for elderly people in primary care?
• Can the development and introduction of clinical guidelines positively affect the practice, role, attitudes and knowledge of community nurses in the care of elderly people in the promotion of continence?

**Aims of the study**

The aim of the study was to implement and evaluate evidence-based clinical guidelines used by community nurses for the promotion of continence for elderly people in the community and to compare outcomes with a control group drawn from the same population in the Trust, who had not received preparation for the guidelines and educational interventions.

**Objectives:**

- To determine and critically examine the practice, role, knowledge and attitudes of district nurses, health visitors, nurse visitors for the elderly and RGNs working in the community before the introduction of clinical guidelines on the promotion of continence.
- To develop clinical guidelines and introduce them to two of the four localities in the Trust, which formed the implementation group.
- To examine documented practice before and after guideline introduction.
- To compare changes/outcome measures with two localities in the Trust, which formed the control group, where clinical guidelines were introduced at the end of Phase Three (evaluation phase).
Structure of the Study

The study was designed in three phases (See Figure 3.1):

Phase One: Situational analysis and design of interventions.

1. Forcefield analysis of the organisational context.
2. Baseline data collection from the community nurses: nurse questionnaires; interviews; focus groups; and continence assessment forms across both implementation and control groups.
3. Development of clinical guidelines for the promotion of continence.

Phase Two: Change Interventions

1. Pilot of clinical guidelines in the implementation group.
2. Present Phase One results.
3. Design of educational interventions and change management strategies
4. Implement change strategies and educational interventions with the implementation group. The interventions consisted of several parts:
   - The involvement of focus groups in the development of clinical guidelines.
   - An educational programme including training updates about the causes, treatments and the promotion of continence.
   - A one-day conference with invited expert speakers and in-house specialist workshops.
   - Training on the use of the guidelines.
   - Follow-up sessions and support from the continence advisers.
5. Introduction of clinical guidelines to implementation group.
Phase Three: Evaluation

1. Repeat questionnaire to nurses in both the implementation and control groups (all community nurses employed in the Trust).
2. Introduction of clinical guidelines into the control group.
3. Repeat document survey of continence assessment forms across both the implementation and control groups.

3.4 Methodological Issues

3.4.1 Quasi-experimental designs

Quasi-experimental designs resemble true experiments, the most powerful research method to answer causal questions. Although it omits to show why something happens, the logic of the design argues cause and effect. Measurement is taken before and after manipulation of an independent variable (intervention). However, quasi-experimental designs lack either randomisation or control group comparison, both of which feature in experimental designs. Such lack of control over extraneous variables is the major weakness of the method and limits the ability to make causal inferences. Internal validity is threatened; in particular, a systematic difference between an experimental and control group may occur due to lack of random assignment. Attention to internal and external threats to validity and measurement error, along with use of multiple methodologies can enhance the generalisability of results. Particular attention upon pre-test measurements and a full comparison between the implementation and control group are therefore critical, as where individual differences are controlled, closer association between cause and effect can be identified and can be generalised to similar populations and contexts. (Black
Taking into account such need for rigour, quasi-experimental designs are more often used in field settings than experimental designs (Maas et al 1998), as they are practical, less intrusive and feasible for testing hypotheses where randomisation of participants to groups is not possible, such as in this study. The selection of separate geographical localities, matched for similarities, was the basis of the intervention and control group, necessary to avoid “contamination” of the intervention between participants. More explanation of the practicalities of an implementation and control group is explained in Chapter 4 section 4.2.3.

3.4.2 Triangulation of Methods and Data Sources

Triangulation is an analogy from navigation, used to pinpoint a position at sea, on land or in astronomy, by measuring a series of triangles upon a map. In research, the use of multiple references from data sources, method, investigator or theory, has become recognised as a way to discover particularly valuable and detailed information about a research issue. On the other hand, single method research is regarded as virtually indefensible, as by themselves each approach can make only limited assumptions (Guba and Lincoln 1989). Using triangulation it is possible to enhance the robustness of any conclusions from the data (Haase and Meyers 1988), although finding “objective truth” is not a feasible purpose. Furthermore, Denzin (1989) asserted that such findings are unlikely to form a coherent pattern; rather, that data yield different pictures, and in this way offer breadth as well as depth.

Two means of triangulation were chosen for the design of this study. One was a combination of methods and the other was the use of multiple data sources, both used
in order to achieve greater depth about the subject and to explain as fully as possible the experience and influences affecting continence care in the community. Sources of data included continence assessment documents, questionnaires completed by the nurses, personal interviews and six focus group meetings. Use of multiple data sources examined nurses as individuals, in groups and their documented records, which potentially increased the credibility and validity of findings. A positivistic bias can underly triangulation, especially of data sources; the notion that one unit of experience can be measured more than once is inconsistent with an interactionist view, which seeks to build interpretations rather than test hypotheses. Methodological triangulation Denzin (1989) suggested is the most satisfactory way to examine the same unit to overcome inherent weaknesses of a single measurement instrument. Each method has strengths and weaknesses; the flaws of one method are often the strengths of another and in combination provide an optimal view. However he pointed out that few studies achieve this potential because most clinical studies operate with only small sets of hypotheses; moreover a consistent picture can seldom be achieved.

In this study a further data source (patient questionnaire) was obtained from patients, but was ultimately not used for the thesis. Intended to identify changes in patient health status as a result of changes in nursing practice, the available patient group were found to comprise only those patients with the most longstanding and severe symptoms of urinary incontinence and so least likely to show difference within one year.
3.4.3 Research Methods

Both quantitative and qualitative methods were used in this study, as each offers a different perspective with which to answer the research questions. Quantitative methods are used when a large amount of data is available and usually when much is already known about a subject, to systematically test established concepts and theories, whereas qualitative methods are exploratory for new topics of study or to provide explanatory detail (Sapsford and Jupp 1998). Questionnaires, commonly used to survey large numbers of people, can explain what happens, but usually lack the detail about motivation or why people behave as they do (Sapsford and Jupp 1998). They are less time-consuming to administer and can yield confidential information more readily than other methods, especially if anonymous. However, poor response rates can occur owing to the lack of personal contact with the researcher; if the questionnaire is seen as too intrusive, too long or taxing; follow-up strategies may be necessary and costly.

3.4.4 Qualitative Methods

Qualitative research methods employ the systematic collection and analysis of subjective narrative material; give an interactionist perspective; and are used to explore relatively unknown topic areas to search for meaning within people’s experience: the reason why events and actions might occur. Qualitative approaches may provide an understanding of patterns and individual differences, and participants may offer information spontaneously. However, the approach lacks the ability to generalise and predict (Morse and Field 1996, Sapsford and Jupp 1998, Mason 2001)
and in reliant upon qualities of the researcher. In contrast to quantitative methods that deduce theory, qualitative approaches are not theory-driven but induce theory out of rich description and from specific observations from data gathered by identifying patterns and commonalities. Therefore reflexivity about the nature of the situation and the part that the researcher plays is a particularly necessary quality here, requiring honesty plus insight. The role of the researcher is critical in qualitative approaches, in that they facilitate the process through gaining acceptance, building and maintaining trust, and establishing credibility. Otherwise during interviews open responses from the interviewees, particularly negative views may be hampered. Skilled facilitation of focus groups is optimal by posing global questions to stimulate discussion, without using leading questions or taking control of the group.

3.4.5 Sampling

Sampling methods vary, but primarily need to ensure the sample is typical of the population they purport to represent and sufficiently large to test hypotheses and detect differences in outcome. Power analysis is a statistical test that predicts sample size in relation to predicted differences. If large differences are predicted to occur, a small sample may be adequate, but where small differences are predicted, larger samples are required (Black 1999). Probability sampling ensures selection without bias and when utilised in large populations achieves representative samples with economy. For this study, the quantitative data collection tools used were questionnaires and a document survey of information recorded on continence assessment forms. It was feasible to approach the total population of community nurses within the Trust (244) and to access all continence assessments performed
over two months (150), whilst non-probability stratified quota sampling was used to enrol interviewees and participants in focus groups. (The methods are examined in Chapter 4 section 4.3.3 and 4.3.4). Although risking bias, quota sampling utilises knowledge of the population to include representativeness based upon extraneous variables that reflect important differences in the dependent variable investigated, in this study, nurse role, length of service and location; appropriate and adequate data collection being the critical factors in sampling for qualitative methods (Morse and Field 1996).

3.4.6 Reliability and Validity in Questionnaires

Key characteristics of the questionnaire design that need consideration are its reliability and validity. Reliability has two major criteria: to what extent does the questionnaire measure nurses’ knowledge consistently and accurately? Consistency refers to the extent that the questions are trying to measure the same characteristic in the nurses i.e. their professional knowledge of continence care. Ability of the questionnaire to measure nurses’ knowledge accurately is more difficult to establish, as extraneous pressures (available time, tiredness, interest) may have an impact. As an instrument of measurement of nurses’ knowledge, the questionnaire is reliable to the extent that errors of measurement are absent. Williams et al (1997) applied the questionnaire before and after introducing a good practice handbook to nurses and found a difference in knowledge. These authors emphasised how the questionnaire was applied each time in consistent circumstances and mode to avoid errors in measurement.
Validity and acceptability were examined by reviewing the questionnaire after a pilot study, to ensure its appropriateness for a community setting and to avoid measurement errors. The pilot questionnaire was completed by all twelve nurses who were asked to take part and who worked within the Trust at the community day hospital. These nurses did not take part in the main study. Changes were made to the questionnaire following the pilot. The section containing biographical information were simplified to tick boxes for the nurse role and the question about continence education was restructured into multiple choice for easier understanding for the staff. Sections two and three, the main parts of the questionnaire used for the study followed Cheater’s design.

Other aspects of questionnaire design for consideration to avoid measurement error include the degree of difficulty of knowledge-based questions, the questionnaire’s overall length, the amount of time it required to complete and clarity of the questions. Poor quality in these areas can be responsible for a poor response rate and/or distorted responses. Another issue is how to assure participants that completing a questionnaire that measures professional knowledge does not subject them to judgements being made about their ability as individuals. For this reason it was decided to make the questionnaires anonymous. Anonymity can also overcome bias that is possible from respondents giving extreme or socially desirable answers (Polit et al 2001). Validation of the knowledge questionnaire in section two was checked against the critical literature review (See Appendix A and Chapter 2 Section 2.5) and the judgement/expert opinion of academic and clinical continence specialists in the same way as Cheater (1990) and Williams et al (1997) had described.
The attitude questionnaire in section Three had been constructed by Cheater (1990), who described the process in which it had been developed. The statements arose from discussion with ward staff and observation of practice and from examination of the literature. Statements covered a range from therapeutic/rehabilitative to non-therapeutic/palliative attitudes in dimensions of nurses’ role, assessment, management and popular misconceptions about people with incontinence. They were worded unambiguously, attempting to be bias-free. The issue of content validity was addressed by engaging expert opinion through checking and scoring of the scale by three experts: a continence adviser, nurse teacher and geriatrician. Internal consistency for opinion scales is measured by Cronbach’s alpha (Black 1999), to estimate the level of homogeneity of statements, indicating measurement of the same attribute. A score closest to 1.0 indicate the most accurate measurement; Cheater achieved an alpha coefficient score of 0.78, indicating a relatively high level of accuracy. Considerations of construct and criterion validity were addressed during the preparation of the statements against ratings by twelve clinical nurses not involved in her study. The construct being measured is various dimensions of attitude to people with incontinence. Both the construct and the criterion are represented in the appreciation that more favourable statements towards people with UI, especially elderly people, are more likely to be linked to a therapeutic approach towards incontinence than unfavourable statements. A number of issues can arise from the use of attitude questionnaires. There can be a tendency for respondents to misrepresent their own views by giving answers that are more socially desirable; to offer extreme responses, or only to give positive or only negative responses. Counterbalancing of positive and negative statements, thereby requiring deliberate
consideration by respondents, was utilised in order to minimise the risk of these biases occurring.

### 3.4.7 Quality of Data in Qualitative Methods

Reliability and validity of qualitative research is addressed through methodological rigour. The trustworthiness of data quality can be established using criteria suggested by Guba and Lincoln (1989) to establish credibility, transferability and confirmability. Credibility of the data can be achieved through long engagement with the participants and checking accuracy of the data collected. Truthfulness of research subjects cannot be defined in advance however can be validated through triangulation of data sources and methods (also see below). How transferable and applicable the data are to other settings or replication in a similar context depends upon the quality of sampling and sufficiency of description given. Confirmability refers to a clearly identified process, supported by an audit trail of decisions and interpretations of the data.

Two qualitative methods were used in the study: interviews and focus groups. They intended to elicit the community nurses’ views and accounts of their experience, opinions and descriptions of their practice of nursing elderly people with urinary continence problems in complimentary ways. Focus groups have the advantage of involving larger numbers of informants at a reasonable cost, complimentary to personal interviews, which can vary in the level of guided direction utilised in an interview schedule.
3.4.8 Quality Control for the Intervention

Planning of the series of interventions to implement clinical guidelines within one community health trust took place in collaboration with a number of professionals/specialist nurses and the study steering group. In Section 3.2 it was identified how the overarching research design for the STEP project supported individual researchers at every stage of the research process. Part of the support system put in place was a steering group composed of senior health professionals and managers and a senior academic leader to whom the researchers reported and received advice on the processes and conduct of the study. In the design and implementation of the various educational strategies, content and process were overseen by the academic leader separately and with the knowledge and advice of the Trust’s continence advisers and their senior manager, and at several points, their collaboration and involvement. In this way a systematic quality controls over the process and content of the study was maintained throughout the study.

3.5 Data Collection Instruments

3.5.1 Community nurses’ questionnaire

The questionnaire used to survey community nurse knowledge, attitude and role was based upon one that had been previously developed and reported by Cheater (1990, 1991, 1992) (See Appendix C). Cheater administered it to hospital-based nurses caring for elderly people with continence problems. It was used subsequently by Williams et al (1995) for nurses working in community hospitals caring for a similar group of patients and by Penney (1999) for nurses working in a group of nursing
homes. The questionnaire was considered a robust measurement instrument that had good face validity and had been applied in a number of settings, where similar care was given to patients who experienced similar conditions. It is regarded as acceptable to use an established instrument in new studies, assuming its credentials are reviewed and a pilot study carried out in any fresh setting (Black 1999, Lackey and Wingate 1998). The variables measured in the questionnaire were these:

- Amount and level of the nurses’ education in continence care and perception of their preparedness for the role.
- The level of the nurses’ knowledge of normal urinary physiology causes of urinary incontinence and treatments and strategies to manage continence problems.
- Nurses’ ability to identify possible causes and treatment options for three types of urinary incontinence from a description in a vignette.
- Nurses’ attitude to urinary incontinence and continence care.

The content of each section of the questionnaire were as follows.

Section One: Biographical information and education

This section requested personal details of nurse role, locality, length of time since RGN and other training were asked, sources of continence education and opinion whether the nurses felt prepared for their role in continence care; amount and level of the nurses’ education in continence care and views on how well nurses felt prepared for their role in continence care.
Section Two – nurses’ knowledge of continence care

This section comprised questions aimed at eliciting information about nurses’ knowledge on the promotion of continence that they would need to enable them to perform their role effectively. Five open-ended questions asked about: causes of urinary incontinence, particular problems experienced by elderly people and the particular problems experienced by women; what treatments are available to restore continence; and what strategies are available for the management of continence problems. Five multiple-choice or closed questions followed, examining knowledge of specific details of urinary tract physiology. The section ended with three vignettes, presenting patient scenarios and requesting the nurses to identify possible causes and treatment options for three types of urinary incontinence from a description in a vignette (The types presented were stress incontinence, retention with overflow and overactive bladder). The use of vignettes is considered to be an effective means of gathering information about how people might actually behave in a clinical situation and therefore represents the nurses’ applied practice knowledge (Polit et al 2001)(see Chapter Seven section 7.3).

The information requested from these questions provided a comprehensive account of continence care knowledge, that nurses with a role in the assessment and management of UI could be expected to have. However, it is acknowledged there are limitations to the conclusions that can be drawn from questionnaire data. For example, respondents’ answers may not accurately reflect how they actually behave and use their knowledge in practice.
Section Three- Nurses’ attitude to urinary incontinence and continence care.

This section comprised a series of statements developed by Cheater (1990) that express a view about a topic, in this case:

“attitudes to specific aspects of caring for incontinent people” p263 (1990).

Respondents recorded their level of agreement with the statement on a five-point Likert scale. The term “attitude” was used to encompass feelings, values and beliefs, which may or may not influence the way we behave (Cheater 1991). More than ten statements are considered optimal for this instrument and statements need to be sufficiently diverse for an adequate dimension of the attitude to be expressed. A balance between positive and negative comments is also necessary to be able to measure the range of favourable or unfavourable opinions about a topic (Polit et al 2001).

3.5.2 Document Survey

A document survey was planned to examine documented practice recorded upon continence assessment forms that were used by nurses working in the Trust. The forms contained details about documented patient continence assessment, treatments instigated and any management methods used. Fourteen criteria were identified from the continence assessment form (see Appendix D). These included: type of incontinence, the patient’s home environment, bowel habit, any medication taken by them, any other illnesses or operations that they had experienced, how often they went to the toilet/ changed continence pads, if used, what their fluid intake was, how many times they were incontinent of urine daily, whether a urine test and or mid-
stream urine test was sent for microbiological investigation and lastly what treatments and management methods were instigated by the nurse.

Potential problems associated with issues of inter-rater reliability were avoided, as the researcher examined all the continence assessment forms (see also Chapter 4 section 4.6). Validity of using initial continence assessment forms as a measure of the quality of assessment is high. It was considered that assessment forms for new patients would contain more thorough details of the patient’s problem and assessment than reassessment forms, submitted every three months. However, whilst the forms record documented nursing practice, this may not represent all of the care actually provided to the patient. Poor quality documented assessments have been found alongside good quality continence care (Roe et al 1996), which may indicate an unsystematic approach to record keeping rather than actual care-giving. The quality of data collected during the document survey and increased sample size at Phase Three are discussed further in Chapters Seven and Nine.

3.5.3 Interviews

Interviews were used in this study design to capture individual meanings and trends. They were intended to elicit the community nurses’ accounts of their experience, attitudes and descriptions of their practice nursing elderly people with urinary continence problems. The interviews were designed to be semi-structured and expected to take up to thirty minutes. The interview schedule contained twenty-four open-ended and closed questions (see Appendix C), some of which could be expanded upon for clarification. With a written schedule, there was scope for the
order of questions to change if they became more appropriate sooner in the interview, or, when another relevant topic occurred, without losing the thread of the interview. In outline, the questions asked what the nurses’ own roles were, what others might expect of them and what activities they and others might appropriately perform. They were asked to whom they might refer patients, what they did for patients and what successes they had experienced. Other questions focused upon the views of the nurses about how prepared they were for their role and about their continence education.

Core categories were structured in advance, based upon the research questions, with allowance for further themes to emerge within those categories from the descriptions and personal opinions given by the community nurses of their roles, practices, education and training and experience caring for older people with UI. The planned themes reflected the research questions of the study, which were:

- Are community nurses suited and able to provide a key role in the promotion of continence for elderly people in primary care?
- Can the development and introduction of clinical guidelines positively affect the practice, role, opinion and knowledge of community nurses in the care of elderly people in the promotion of continence?

The interview schedule was subjected to the expert opinion of the three continence advisers of the Trust, who were asked to comment on the suitability of the questions. It was agreed that the schedule was appropriate in its existing format and no further changes were made.
The themes coded in advance were grouped under four headings: nurse roles, nurse practice, education and training and caring for older patients. Definitions of the terms used for the study are to be found in the Glossary (Appendix E) and more about the method used in Chapter Four.

3.5.4 Focus Groups

Focus groups were planned with a structured outline of prepared questions, to promote discussion, but allowing for other topics and exchanges between group members to flow freely in the discussion (Krueger 1994). The general structure of prepared questions were composed of these headings:

- **Policy and procedure development:**
  To ask the nurses for comments upon their experience of policy and procedure development and which aspects of their current continence care practice needed examination.

- **Trial continence assessment documents:**
  To ask the nurses to examine and trial continence assessment documents that were under discussion by the teams of continence advisers and managers from two trusts within the health authority (Appendix B) and to feed back their own and colleagues’ comments upon the use of the continence assessment documents.

- **Experience of continence assessment:**
  To ask the nurses to discuss the experience of continence assessment using the proposed documents and any issues arising from it.

These topics are used as the headings to report focus group findings in Chapter Five.
Within focus groups, participants are encouraged to share their ideas and perceptions about a topic of which they are knowledgeable but is different from an individual narrative. In a group, self-disclosure presents less risk (Krueger 1994, Morse and Field 1996) and focus groups are recognised as a productive way of collecting ideas and views, distinct from interviewing individuals. The questions asked were different from those in individual interviews and although the method approaches the same issues, it is from a different angle.

3.6 Theoretical Underpinnings for Action Research

Critical theory in social science provides the philosophical support for a modern interpretation of action research methodology. Critical theory arose in the “Frankfurt School” in the 1920s in reaction to the domination of a positivist tradition in the social sciences as well as dissatisfaction with apparent uncritical subjectivity of the interpretative approaches (Layder 2001, Carr and Kemmis 1986). Habermas (1986) proposed an ethnography that synthesised the strengths of each tradition. He valued the rigour of scientific objectivity, distance and the ability for generalisation to occur and acknowledged that contributions from interpretive approaches bring understanding of human values, ethics and tacit knowledge from the examination of micro situations. He proposed that social science comprises three kinds of knowledge: technical knowledge, offering causal explanations through empirical work; practical knowledge, which offers understanding through interpretation; and emancipatory knowledge, in which understanding is arrived at through self-reflection upon the explanation and its social settings. Out of this process, value systems and judgements and beliefs can be challenged and suggestions for remedial action and
improvement arise. The notion of social action among the participants or on the part of the researcher was a development of the classical (Aristotelian) notion of praxis or doing.

Critical theory has a particular history and tradition, in the form of reflective enquiry by participants in order to improve the rationality of their practice in social situations, has influenced much contemporary field research in anthropology (Burawoy 1991), education (Carr and Kemmis 1986) and latterly, nursing (Muecke 1994, Hart and Bond 1995, Webb et al 1998). Burawoy (1991) proposed that causal explanations reached in such studies about their situation and the systems or external forces that impact upon them can be valid beyond that setting. Burawoy argued that macro political and economic systems shape micro worlds and in turn are shaped and conditioned by them; micro worlds therefore represent the macro world. However, many studies are less ambitious to generalise their findings (Carr and Kemmis 1986, Hart and Bond 1995). Critical theory in this study was utilised to investigate both the broad experience and practice of continence care within one area of nursing practice and to focus upon how groups of community nurses and individuals view that experience. An integration of methods and data sources was employed to achieve this. Reflection, both with the nurses and upon their accounts contributed to an evaluation of how to help to develop professional practice among community nurses.

Action research is a methodology that embodies the principles of critical theory; social analysis uncovering the hidden assumptions and value judgements that underpin dominant ideology; enabling people to examine the forces that shape their
hierarchical and social relationships within society. It is applied to a social setting and simultaneously generates knowledge about the social system and attempts to change it democratically, thus linking theory with practice, by attempting to overcome the lack of implementation of theoretical findings into practice (Hart and Bond 1995, Waterman et al 2001). The term action research is attributed to Lewin (1951) whose method, applied to work about group dynamics and change management, has altered little; it is diagnostic, democratic, pragmatic and empirical. He described a series of steps including enquiry, planning, action and evaluation or reflection. The essential aims of action research are for improvement and involvement, with participants involved at each step of the research process. Improvement is the aim in three areas: in actual practice, in understanding of the practice and in improvement of the situation in which practice takes place (Carr and Kemmis 1986). The distinctive criteria of action research have been summarised by Hart and Bond (1995) (Table 3.1). The main aim of action research is for social action or change to occur and its philosophical origins in critical theory place value upon a combination of quantitative and qualitative methods and the active involvement of participants (Carr and Kemmis 1986, Waterman et al 2001).

1. Educatve
2. Deals with individuals as members of social groups
3. Problem-focused, context specific and future-orientated
4. Involves a change intervention
5. Aims at improvement and involvement
6. Cyclic process of research, action and evaluation that are linked.
7. Participants are involved in the change process.

Table 3.1 Summary of criteria of action research (Hart and Bond 1995 page 37)
Lewin’s application of action research was largely experimental, but contemporary action research operates across a continuum from experimental to empowering engagement with participants. Other more general terms such as collaborative research or participatory action research are also used (Carr and Kemmis 1986, Hart and Bond 1995, Webb et al 1998) although in their systematic review, Waterman et al (2001) found that individual studies rarely fit one typology. Hart and Bond suggested that each study requires an individual definition (1995).

The development of more participatory approaches may have originated in the criticism that the democratic involvement of participants in Lewin’s work was more a technique of social manipulation rather than social action (Holter and Schwartz-Barcott 1993), although a structured experimental approach might overcome the criticism made of other types of action research, that outcomes cannot be attributed accurately to the process and methods employed (Waterman et al 2001). A broad advantage of action research is that of flexibility, which permits and values a range of quantitative and qualitative methods to be used within a wide variety of settings and takes account of the social and cultural features of those settings (Holter and Schwartz-Barcott 1993, Hart and Bond 1995).

The design in this current study resembles what Carr and Kemmis (1986) termed a technical form of action research in their classification system, or, using Hart and Bond’s typology (1995) a mix of an experimental and organisational form, in which findings are applied from outside and the design is quasi-experimental. The researcher’s role is to persuade practitioners to reflect upon their practice and apply findings from other research into their own work. For this study, national clinical
guidelines for primary care (Button et al 1998) were adapted by a consensus of local experts and developed into local guidelines that were to be introduced to practicing nurses in the Trust.

Criteria for all forms of action research (Table 3.1) were met in this study.

1. The series of interventions (see Chapter 8) were educative.

2. The roles that nurses performed in the promotion of continence were examined within their localities, within their teams and for qualities that individuals possessed.

3. The study focused upon the problems and issues for implementing best-practice recommendations within one community trust and for improving the capacity for this to continue into the future.

4. The change intervention involved the implementation of clinical guidelines.

5. The study aimed to improve practice through the use of clinical guidelines and to involve the community nurses in examining their practice and the development and use of guidelines in a supported way.

6. The study proceeded in a series of phases each involved activities of fact-finding, planning, action and evaluation.

7. Involvement of participants in the change process was one factor that was most difficult to attain. The level of involvement of participants and their collaboration with the researcher was limited, as found in similar studies (Waterman 2001, Meyer 1995). Active participation for all of the community nurses would have been strategically difficult with a large workforce (140 nurses in the implementation group) at 20 different sites and within a geographically large community trust (500 square miles), for a study carried
out within a limited time. Although participants were not involved from the outset to identify their own clinical problem, or have a strong role during guideline development, they were included from the planning phase: Phase One (see Table 4.2) and deliberate involvement of the participants in the study took place thereafter. They were informed promptly of the ongoing process, interviewed, asked for comments, involved in discussion and asked to carry out a trial for the guidelines. The availability, structure and content of continence care training were based upon the learning needs identified by the nurses themselves during Phase One. Recommendations from the trial and focus group meetings influenced decisions about guideline content and structure and the layout of the assessment documents, as well as decisions about the content of the clinical guidelines.

3.7 Action Research Framework

The framework used for this study followed the common structure of action research (Hart and Bond 1995), which comprises a sequence of phases, within which a spiral of activities occurs: Enquiry (or situational analysis as used in this study), intervention and evaluation take place and inform the following phase. The action research components that took place within each phase of the study are shown in Table 4.1 (Chapter Four section 4.1). Activities often overlap phases, but generally they are progressive.

An important factor in the process of practice development was that the community nurses should be as fully involved as possible throughout the process (Palmer 1995).
The belief that people are more likely to act on decisions made democratically than to act on a decision made without their involvement underpins all action research from its origins with Lewin’s change management strategies and subsequent applications (Holter and Schwartz-Barcott 1993, Hart and Bond 1995, Waterman et al 2001). It was therefore the methodology chosen to structure the study.

The role of the researcher in action research is to be actively involved with the participants at all stages of the research process. Hart (1995) suggested that this leads to a blurring of roles and possible loss of objectivity, but on the other hand, intimacy with participants is often the means to promote change and encourage understanding of practice. Not surprisingly therefore, the role has been described as a demanding and frustrating experience (Meyer 1995, Titchen and Binnie 1995, Perry 2002), requiring a range of advanced interpersonal and organising skills to drive the process forward (Ross and McLaren 2000). The researcher’s experience in this study is discussed in Chapter Four section 4.2.

The collaboration and participation of the community nurses was utilised to firstly identify the issues and experience of working in continence care and then to be involved in the development, operation and evaluation of clinical guidelines. Sustained improvement in practice was intended. This is a rather different approach from a solely quasi-experimental study in which the participants are viewed more as passive subjects.

In this study, facilitation took the form of deliberate activities to involve the community nurses themselves in the processes of guideline development and
implementation. This information clarified and expanded upon some of the data asked in the questionnaire and what was found out about recorded practice through the documentary survey. Focus groups, in turn gathered data about group interactions between colleagues, prompted only initially and where necessary by a facilitator. In this way, findings from the different sources and approaches can be used to corroborate each other, identifying dilemmas or contradictions and offering new insights or questions. If several independent sources of evidence points to a common conclusion, it is strengthened (Denzin 1989, Hart and Bond 1995). Haase and Myers (1988) have suggested that a balanced integration of both quantitative and qualitative approaches in nursing research is favourable, but have cautioned that in combining methods one may subsume the other. They assert that nursing particularly needs to make efforts both to gain understanding through the identification of commonalities with past experiences and to recognise individual differences in a situation and thus reconcile both approaches. A more even balance may be more achievable within nursing than other health service professions. Hoogwerf (2004) noticed that nurses examining their own clinical practice were more open to findings from qualitative approaches than their medical and paramedical colleagues who valued quantitative findings more. This may be because nurses have a better appreciation of and a pragmatic use for research that interprets experiences of patients and colleagues.

Opportunities for involvement of all the community nurses were lost owing to the necessity for controls in the study. An action research approach led to the involvement of participants in the implementation group throughout the entire process and period of the study. This included feedback about their own stated educational needs, ensuring their comments and identified issues were taken account
of in the development of the guidelines along with opportunities to discuss their role and its development. None of these factors or educational opportunities were available to the nurses in the control group during the study period and fewer were available afterwards. This was especially unfortunate with regard to the day conference, which featured both internal and external expert speakers and was of interest to many more nurses than actually attended, some of whom worked in the control group area.

3.8 Ethical Considerations and Data Protection

Fundamental ethical considerations in research are that human subjects’ rights are adequately protected and the merit of the study is proportionate to the risks incurred (Polit et al 2001). Three primary ethical principles of respect for human dignity, justice and beneficence encompass these requirements that are also enshrined in the Common Law Duty of Confidentiality and the Data Protection Act (1984, 1998), although the study took place prior to the new Act coming into force (March 2000). Approval for the study was sought and received from the three ethics committees covering the boundaries of the Trust.

The principle of respect for human dignity ensures that subjects give informed consent; they have self-determination to decide to participate or withdraw from research at any time, free from coercion and with full disclosure about the study, whilst justice ensures that whether participating or not, subjects receive fair treatment, confidentiality, anonymity and that vulnerable subjects are protected. Confidentiality and anonymity were the main considerations for the staff that took part in the study. Information, along with assurances of anonymity and
confidentiality to participants at the outset of the study was critical to obtaining informed consent, encouraging participation whilst giving the option to choose not to participate. It was explained that information gleaned about views and practice would be discussed generally and incorporated into the guideline development, however, within that, individual contributions would be protected from being identified. This is of particular importance where a balance between contributing to the solution of a problem vies with the importance of anonymity (Lathlean 1996). However, there is an issue that context and personal data become more not less visible as validation methods within qualitative research and as such, confidentiality can become difficult to maintain. This is related to the issue of producing written reports and publishing material to a wider audience. Participants were informed of the intention to produce a report and publish findings and an assurance of providing a feedback summary of findings was honoured. However, in reporting privileged data, wide-ranging impact on the interests of those researched as well as others about whom generalisations are made, which is outside the specific research relationship and whose interest can be served or damaged by the analysis. For this study, the implications of negative findings have the potential to harm the reputation of the organisation, the professional groups and affect staff morale. In reporting external to the organisation there are issues of threat to the strong hierarchy and for participants and the researcher being seen as whistleblowers.

The practicalities of safeguarding data comprised presenting consent forms that included agreement for interviews to be tape-recorded and all were signed prior to all interviews. Data protection requirements to nurse participants were acknowledged in
that anonymity of contributors was secured through coding of interviews by assigning each a number and notebook records of names and codes were kept locked away. The storage of all the data was secure, in a locked cabinet at the university or a locked filing cabinet when working on material at home to which only the researcher had access.

The rights to full disclosure may be compromised when certain changes are the intended aims of the study. If the aims of the study to measure change in knowledge, attitudes and practice of community nurses had been explicitly stated, that might have compromised the study outcomes. A more general purpose was used in the description of the study. Equity in receiving fair treatment for the patients and information for the nurses within control group locations needed consideration in the study. This led to deliberate focus upon equitable support being made available to implement clinical guidelines across the control group locations in the Trust towards the end of the study. Patients had maintained the same level of care available to them before the study began and were subject merely to a time lapse in full implementation of the guidelines. However, one drawback of the use of a control group was that nurses in the control group were not immediately able to access the same level of education that had been made available to nurse in the implementation group during the study, although intentions within the Trust to increase availability was intended.

Beneficence requires that subjects are free from harm, exploitation and that a reasonable risks/benefit ratio exists. It would have been unreasonable to subject nurses to increased effort and workload by the adoption of a new approach to care
(clinical guidelines) without rigorous examination of the evidence or engage in a study with serious design weaknesses. The intervention utilised in the study was knowledge-based and was ethical in that it was in principle, capable of improving the knowledge skills and practice of the participants and therefore beneficial for both nurses and their patients and was moreover an improvement on previous practice.

Access to patient records and their use in research has become more complex following the Data Protection Act 1998 (Redsell and Cheater 2001), which would probably have affected access to patient continence assessment records in this study, which took place prior to the Act’s enforcement, receiving permission from three ethics committees. Subjects must now have given explicit consent to the processing of personal data, although one exemption allows that for research purposes under relevant conditions personal data can be processed for a different purpose than the one it was collected for assuming that this does not cause substantial damage or distress and anonymity is assured. With this requirement, and that patient consent to assessment in the knowledge that health professionals are governed by existing rules of confidentiality, might be regarded as sufficient access for a research study to gain permission. However, this advice appears contradictory and has led to variable interpretation of the Act across the UK, subject within health trusts to the rule of Caldicott Guardians. (Guardianship is taken by one representative within the trust who is responsible for maintaining the requirements of data confidentiality.) Therefore, with the sensitive nature of continence matters and in the current climate it would probably have made these documents vulnerable to accessibility.
In conclusion, the design and conduct of this study was ethically robust, by incorporating expert academic advice; and with full consideration made of the human rights of both staff and patients; and offering equity of access to the intervention (for the control group towards the end of the study). The intervention offered was not hazardous, invasive or pose a health risk to vulnerable patients. Indeed, it was intended to improve collaboration between nurses and patients; improve quality of assessment and offer treatments known to be effective. Avoidance of the risk from damage to professional reputation and morale through the identification of poor practice might be ameliorated by sustained support which was a component of the post-study period.

3.9 Summary

Action research principles influenced the methodology used for this study: an approach that involves participants and leads to social action and may encompass a variety of typologies. Here, a quasi-experimental design was used, described by Carr and Kemmis (1986) as a technical form of action research. The cyclical activities involved enquiry, action and evaluation during three phases. At Phase One, measures of practice, role, knowledge and attitudes were made for continence care among community nurses within one NHS trust; at Phase Two, educational interventions and clinical guidelines were developed and disseminated; and at Phase Three the impact and evaluation of any changes were evaluated. Triangulation of sources of data and different methods were deliberately employed to enhance the robustness of any conclusions derived from the data.
Chapter Four

Phase One: Situational Analysis, Research Enquiry and Method

4.1 Introduction

The structure of Chapters Four - Six follow the stages involved in action research: enquiry, method and results. This chapter describes the Enquiry and Method stages of Phase One of the study as outlined in Figure 3.1 in Chapter 3. The results are presented in Chapters Five- Six, according to the methods used to collect the data. Quantitative findings derived from questionnaires and a document survey are presented in Chapter Five, whilst qualitative findings generated from interviews and focus groups are presented in Chapter Six. The timing and sequence of the components of each stage of the study are shown in Table 4.1.

The population chosen for the study was the community nursing workforce of one community NHS trust in the South of England. In collaboration with the local university, the Trust had successfully bid for research funding alongside other trusts within the Region. It was a geographically large trust of 500 square miles with a population of 470,000 that provided health services to parts of two health authority areas and had two general hospitals within its boundaries. In the first year of the study the Trust merged with the local mental health trust. Although this resulted in significant structural change, the Trust continued to be administered and managed as four geographical localities. These localities were distinctly separate and provided implementation and control groups for this study.
The structure of this chapter is as follows:

4.2 Enquiry Stage

This stage involved preparation for the conduct of the study and comprised:

- Section 4.2.1: Role of the researcher: establishing the role of researcher and working relationships with key characters.
- Section 4.2.2: Forcefield analysis to identify drivers and resisting forces within the organisation.
- Section 4.2.3: Participants - the sample: identifying the sample; implementation group and control group; and plan staff involvement.

4.3 Method Stage - Data collection

This stage involved carrying out the baseline research:

- Section 4.3.1: Questionnaire
- Section 4.3.2: Document Survey of continence assessment forms.
- Section 4.3.3: Community Nurse Interviews.
- Section 4.3.4: Focus groups: facilitate focus groups.
- Section 4.3.5: Statistical Analysis.
- Section 4.3.6: Quantitative Analysis.
- Section 4.3.7: Guideline Development.
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<td><strong>Enquiry</strong></td>
<td>Training of STEP project post-holders Establishing working relationships Identify key people and plan staff involvement Forcefield analysis of organisation</td>
<td>Feedback comments via focus groups on use of guideline documentation. Identify drivers and obstacles to study performance from the forcefield analysis. Select education strategies: content, style, timescale, settings. Communication and collaboration. Distribution and implementation of guidelines within implementation group</td>
<td>Repeat questionnaires to all community nurses (n=244) Ongoing support to guideline users Introduction of guidelines to control group within the trust</td>
</tr>
<tr>
<td><strong>Method</strong></td>
<td>Distribute questionnaires to all community nurses (n=244) and retrieve them. Hold interviews (n=30) Run focus groups (n=6) Carry out document survey (n=41) Develop clinical guidelines &amp; documentation</td>
<td>Training programme for staff (n=140) including: Promotion of continence updates- series Clinical Guideline training sessions-series Individual copies of guidelines for the nurses Provision of urine testing kits Follow-up sessions for, reinforcement/support for non-attenders.</td>
<td>Document survey (n=109) Analyse data Prepare findings</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td>Analyse and report initial findings within implementation group, the Steering Group and the Trust Executive Research Conference presentation.</td>
<td>Ongoing support for use of guidelines: advice from continence advisers supply of assessment forms</td>
<td>Report findings: Present report to trust executive Send report to funding body Summary of findings distributed to participants Presentation at Trust conference Presentation at RCN Research Conference</td>
</tr>
</tbody>
</table>

Table 4.1: Action research framework showing the components within each phase.
4.2.1 Role of the Researcher

1. Establishing working relationships

At Phase One, the researcher’s role was to introduce the aims and outline objectives of the study to the Trust at every level, to obtain information about the human and physical resources and structures of the organisation and to establish a working relationship with the key participants in the study. Formal and informal presentations to the Steering Committee and the executive directors of each locality took place. Personal meetings with Clinical Service Managers, who were responsible for all community nursing services in their locality, were arranged to deliberately include them in the process of the study and to gain access to field staff and the continence advisers, with whom the researcher subsequently worked to develop clinical guidelines and some of the other interventions. The researcher was introduced at staff meetings for the district nurses and health visitors and made informal presentations to promote and request the participation of the nurses and to identify staff with a leadership role in their teams or a particular interest in continence care. Local information within each locality was explored and in this way the roles of the nurse visitors for the elderly and several physiotherapy clinics were identified (See further in section 4.3 forcefield analysis).

1. Position in the organisation

The role and status that a researcher has within an organisation can both assist and hinder the progress of their task. They are usually classified as insider/outsider characteristics (Marquis and Huston 2003, Titchen and Binnie 1995). My own role and credentials presented a mixture of insider and outsider characteristics.
My own insider characteristics of advantage arose from a variety of experiences. I had worked earlier that year in one locality as a bank district nurse at three different nurse bases, so knew members of those three teams. Throughout the four localities, I was also acquainted with several community nurses through shared professional training (district nursing, specialist practice teacher, professional education), through working with student district nurses and meeting other specialist practice teachers, or shared roles and workplaces in other health trusts, over many years. I also lived locally and was familiar with the geographical area of the Trust and had a general knowledge of its public history. Therefore I had some insider knowledge of the organisation from working within it in a known role as a practicing community nurse, which moreover offered some professional credibility and smoothed some routes for me. Such informal acquaintance with a widespread heterogeneous group of community nurses, who were able to introduce new contacts, helped the process of information gathering.

However, my role as an insider was limited, as my knowledge was insufficient to understand many of the subtleties of structure and culture of the organisation. The role in which I had been employed was temporary and conferred no advantage of authority. Subsequent to my employment, the structure of the organisation had altered substantially over the first months of the study and I came to the organisation anew during the settling–down period following changes associated with the merger of two Trusts.

Benefits and disadvantages arise from a researcher being an existing member or insider of an organisation. The benefits include being known to and trusted by colleagues and other research participants, with established relationships. The
researcher who is an insider is likely to have detailed knowledge of the culture, history and key personalities, the formal and informal structures and power-bases especially valuable for routes of communication within the organisation, all of which would be time and labour-saving when trying to find sources and effective routes of communication. The downside may arise from a lack of authority in a new role as researcher within the organisation above and beyond their former known role and less objectivity in an appraisal of the organisation, its culture and relationships than a fresh view would give, that are considered benefits of an outsider as researcher (Hart and Bond 1995).

During the study my prime mode of operation was as an outsider of the organisation, chiefly because the role or researcher/project leader was entirely novel within the Trust. The post was dedicated to a specific activity, for a defined period of time and was an honorary appointment to the Trust, with the contract held by the University. Most advantages of the outsider role were conferred through the post, receiving managerial support from outside the organisation and direct access to a dynamic and well-led Steering Group, whose Chair was an Executive Director. When necessary I could negotiate to invoke authority at executive level over budget problems and acceleration of complex decision-making processes.

Project management support available from the academic resources and informal personal links with other project leaders provided a further benefit not available within the organisation to manage progress of the study. Progress within all of the STEP studies depended a lot throughout upon negotiating skills, or as Perry (2003) and Redfern et al (2000) reported, skills of marketing and salesmanship. It was a common finding that key players in the organisation had considerable power to act as
allies or opponents or to act as neutral observers to the change processes introduced by the studies; power over resources, access to other participants, permissions, whether to co-operate or refuse. All of these features were experienced to a greater or lesser degree in all of the STEP studies and a frequent topic of discussion among study leaders concerned avoiding/ managing obstructions to their progress, particularly where middle management did not apparently share time-limited targets experienced by their seniors or by fieldstaff (Perry 2003).

Section 4.2.2 Forcefield Analysis

Multiple sources contributed to the compilation of a forcefield analysis of the NHS trust that took part in the study; the forcefield analysis is presented here. The purpose is to identify factors that would promote and those that would impede the progress of the proposed change. Forcefield theory and all action research approaches emphasise the use such an analysis of the setting, so identifying actual and potential obstacles and drivers for change (Kitson et al 1998, McLaren and Ross 2000) (Table 4.2). Organisational structure, communication systems and leadership within the Trust offered a range of drivers and barriers to professional development in both general terms and specifically for continence care provided by community nurses.

The Trust was experiencing a period of considerable change affecting all levels of the organisation. At the outset of the study it experienced a merger and during the settling-down period needed to establish new executive structures and policies for clinical governance, make preparation for primary care trust formation and deal with elements of future uncertainty. New managerial posts and applications within each profession for lead posts were also under way, so structural disruption still affected
all levels of staff. Whilst corporate systems and strong channels of communication had not been fully re-established, administrative localities had been retained and certain systems, such as clinical audit, that utilised an established quality assurance model to review clinical practice, along with clinical effectiveness leadership to disseminate good practice had maintained activity and were fully functional. Community nurses were familiar with and utilising clinical guidelines in some aspects of their work and some had experience of policy development, although this was not current and there had not been any recent audit or policy activity in the area of continence care within the Trust. There was therefore some evidence of the Trust as a learning organisation (Chapter 2 section 2.16, Table 2.3), (Table 4.2), in terms of its established systems, new structures and philosophy. Leadership, valuing education, research and sharing best practice were embodied in the senior posts of research and development manager a clinical effectiveness manager responsible for informing staff and sharing information about best practice internally and disseminating published research findings. Moreover, the Trust was in a position in principle to support clinical change in continence care, especially through executive leadership from members of the steering group; an important strength for the study to progress.
## Drivers for Change

External agendas and drivers for review of practice:
- Health Authority Review—economic
- Clinical Governance legislation—quality and effectiveness.

Published evidence supporting need for change:
- Published clinical guidelines in primary care (Button et al. 1998).

New Trust structure reflects philosophy of clinical governance.

Strong leadership by steering group for the study, with influence over some systems and budgetary obstacles.

Dedicated post to help implement guidelines and study the results.

Three continence advisers employed in Trust in long-established posts. Known by most staff.

Established audit practices.

History of standard setting practices.

## Resisting Forces

Recent merger and complex structural changes in the organisation. Changes in some key leader roles and settings.

New Clinical Service Manager roles: incumbents unfamiliar with clinical community nursing.

Loss of key individuals who championed the study introduction during Trust merger and restructuring.

Fragmented leadership in the management of effective clinical change and the provision of professional in-service training.

Complex and fragmented systems of communication within the Trust.

Role of researcher within the Trust was unfamiliar to field staff and their managers. Weak power base.

Missing essential resources for continence care.

Major part of existing role for continence advisers is administration of continence products and domiciliary visits. Minor role in provision of training, with no direct link with physiotherapy clinics. Audit practices not used within continence services, except for budgeting. No current written clinical standards for continence care.

## Potential Forces for change

Desire at Executive level to support the study and guideline implementation.

Benefits included extending their Research and Development portfolio and for the Report from the study to provide an analysis of the potential and direction for further development of the continence service.

The study report could identify existing good practice and potential links for the future.

Motivation and knowledge among some nurses to provide more effective continence care to patients.

The development and use of guidelines in continence care was building on a concept already familiar to the community nurses. Guidelines in childhood enuresis and leg ulcer management and nurse prescribing protocols were in use in the Trust.

## Potential obstacles

Usual pace of change for any clinical policy commonly much longer than the time frame available for the study.

Competing demands upon staff to attend training, expand the service and cover for absent colleagues/missing posts without extra resources.

No allocated budget for guideline implementation process.

Guideline implementation was seen as a drain on existing limited continence budget.

Possible sense of threat to role and power-base of senior continence adviser by additional responsibilities and presence of researcher.

The study and guideline implementation was competing with the impact upon the organisation of major external changes to the structure of primary care. This affected roles within the organisation: co-opted staff were missing, and internal competition for new leadership roles was taking place.

Key individuals at all levels in the organisation were un-cooperative in the study or the process of guideline implementation, acting as gatekeepers.

Health Authority Review process affected the responsibilities of the continence advisers substantially. The commissioning process for a new continence products supplier was a priority over the process of guideline development and implementation.

<table>
<thead>
<tr>
<th>Table 4.2 Forcefield Analysis for the Organisational Setting</th>
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<td><strong>Resisting Forces</strong></td>
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</table>
4.2.3 Participants- the Sample

The sample of participants was the whole workforce of 244 community nurses within one community health trust. They included district nurses, health visitors, and registered general nurses working in the community as staff nurses or in a post entitled nurse visitor for the elderly. Student community nurses, bank and night staff were not included in the study. The profile of the community nurse workforce in terms of age distribution was similar to the national statistics for England and Wales (One quarter of the workforce over 50 years; average age for district nurses 45.4; average age for RGNs 39 years) and the ratio of qualified district nurses to practice population was similar to those across England and Wales (4:10,000) reported by the Audit Commission (1999), confirmed by examining Trust audit data. All of the community nurses were female.

Implementation and Control Groups

Rigour of method in a study using a quasi-experimental design relies upon control of extraneous variables and manipulation of the independent variable, so that change that occurs in the dependent variable(s) can be attributed to the independent variable. The group who were exposed to the independent variable (the implementation group) need to be similar to a control group and to have the same experiences during the duration of the study, other than the intervention, in order for the intervention to be attributed as the cause of any changes. In this study two localities (1&2) of the four localities of the Trust acted as the implementation group where the nurses were involved at Phase Two in a variety of education strategies and the development of guidelines. The remaining localities (3&4) of the Trust provided a control group and
were not involved in the development process or the education strategies. Whole localities were selected as the control and implementation groups as strong efforts were needed to avoid crossover/contamination of information between them. At the outset of the study, the implementation and control groups were chosen for their similarity. They were matched as closely as possible for the population of elderly people (over 65 years). The implementation group population was 29,950; the control group population was 32,226 (Department of Health 1998b). The other feature was that one locality in each group was predominantly rural and one was predominantly urban.

The considerations were that each locality was managed separately, their centres were geographically widely separated and there was little chance of crossover for other training and meetings as these tended to be held on sites within the locality. In other respects the workforce was stable, with movement of staff between localities only for permanent or student placement. The night service nurses, who travelled across the whole area of the Trust, might have been a route of contamination between the implementation group, who had personal copies and use of the clinical guidelines and the control group to whom the guidelines had not been introduced. The risk proved low in terms of personal contact, as the service was based at a central community hospital, not a base for any of the day community nurses; began each evening several hours after the day staff finished; and communication was by written, patient-specific handover, sent by fax to the base or telephone handover, if necessary, concerning seriously ill patients.

However, two of the night staff asked to come to the day conference provided for the implementation group. One of them explained that she had seen a flyer invitation at
one of the implementation locations whilst she was attending a daytime meeting. There appears to have been some information that was available to nurses to whom it was not aimed, nurses who enquired were advised that training was planned to be available for them within the next year.

4.3 Method Stage- Data Collection

4.3.1 Questionnaire

The questionnaire (See Chapter Three and Appendix C) was administered by post to all the community nurses employed in the Trust (n=244), with an explanatory letter, asking for co-operation and informing that anonymity would be respected. A return envelope was supplied. An initial poor response led to a follow-up letter being sent after two months, and after a further month, reminder phone calls to each nurses’ base and requests via locality nurse meetings. The resultant responses achieved was 102/244, of whom 50 were from the implementation group and 52 from the control group.

4.3.2 Document Survey of Continence Assessment Forms

A survey was carried out upon the content of continence assessment forms that were used by nurses working in the Trust, in order to examine documented practice. The survey identified the main criteria that should be included in the assessment (See Chapter Three section 3.4). The frequency with which they were recorded in continence assessments performed upon new elderly patients was recorded. All the continence assessment forms that had been submitted to the continence service during the previous two months were examined (n=41). The choice of two months’
documentation was pragmatic because the documents were kept together after processing for two months before being filed alphabetically by a clerk at the continence office. At the beginning of the study 150 assessments had been carried out in the previous two months, of which 41 were assessments of new elderly patients, which was the total included in the Phase One document survey. At Phase Three more new assessments were available for analysis (Chapter Nine). In order to test reliability of data collection, the researcher examined all the continence assessment forms on two separate occasions and achieved an acceptable intra-rater reliability level of 98%. Data were analysed using an SPSS 10.1 programme.

4.3.3 Community Nurse Interviews

Interviews were held with a representative sample of thirty community nurses (see Table 4.3) to elicit personal accounts and views of nurses’ experience of their practice nursing elderly people with urinary continence problems. The questions were designed to find out what the nurses’ role entailed, what activities they carried out as part of their role, and their views about their own and other health care professionals’ contributions.

The number of interviewees selected was to ensure an appropriate and adequate sample (Morse and Field 1996). All nurse roles in both the implementation and control groups were represented, seeking the most detailed account by those who were knowledgeable about the topics. In addition, the number of interviews chosen was intended, to some extent, to overcome the deficiencies experienced from a low response level to the earlier nurse questionnaire. Thirty interviews represented 12.5% of the workforce and that number would allow for each nurse role, each geographical
locality and as broad a representation of possible views and meanings held by the nurses as possible for this part of the study. Therefore, a non-probability purposive sample, stratified by locality and role was assembled by compiling a full list of nurses working within each locality from data given by each Clinical Service Manager (CSM), and then telephoning each nurse base to identify an interviewee, usually with the help of the nurse co-ordinator for each base. A direct personal approach was considered most appropriate to encourage recruitment, so a strategy was employed to telephone each of the thirty six nurse bases, at different times of the working day and to speak to as many nurses as possible to invite participation by personal invitation, until appointments with the sample of 30 nurses was achieved. In this way, all inclusion criteria were met and the sample gained promptly (See Table 4.3).

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Selection for 30 interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of nurse bases obtained from managers (36).</td>
<td>Implementation group and Control group provide 15 interviewees each</td>
</tr>
</tbody>
</table>
| List of community nurses obtained from nurse managers. Nurse roles identified (4) | Aim to obtain the following number of interviewees from each of implementation & control groups  
district nurses 6  
health visitors 4  
RGNs 3  
Nurse visitors for the elderly 2 |

**Table 4.3: Sampling procedure for nurse interviews**

Interviewees received written information about the interview both before and after the interview took place (Appendix C). All signed a consent form, agreeing for the interview to be tape-recorded. Interviews were transcribed verbatim and read through
to become thoroughly familiar with the content; it was then analysed using a computing software programme for qualitative material entitled Nud*ist Version 4. The analysis is described in section 4.3.6. All material from the study was stored securely in locked cabinets.

4.3.4 Focus Groups

Focus group discussions were arranged, to provide further perspectives on activities and opinions of the community nurses. They were an activity that overlapped Phases One and Two of the study, as they also served a second purpose. This was to contribute to the development of the clinical guidelines and to identify educational support to be provided during the guideline implementation. Therefore focus group discussions were only held with the implementation group (see Figure 3.1 Chapter Three section 3.1)

Recruitment for focus group participation took place through personal invitation offered at four professional meetings of health visitors and district nurses in the implementation group that the researcher attended. These were usually well-attended meetings chaired by the Clinical Services Manager for the locality, providing administrative and policy information separately for health visitors and district nurses, often with one or two invited speakers. At the four meetings attended, the researcher was invited to speak to give an overview of the practice developments proposed in response to the earlier questionnaire findings and staff suggestions for training needs. The forthcoming training programme in conjunction with the continence advisers was announced and an opportunity for further involvement of staff in a series of three or four focus groups at each locality were offered. An
explanation was given that it would be limited to between one and one and a half hours each, over the following three months with the purpose of elaborating upon the issues arising from the questionnaire comments, discussing a new assessment form and proposed guidelines.

The topics encouraged in the focus groups were about all aspects of continence care for elderly patients, and the nurses’ interests and concerns surrounding existing standards of continence care. This led onto discussion about the proposed guidelines. Members of the groups were asked to pilot the draft continence assessment document themselves and among colleagues and then feed comments back to the focus group. These were, in turn, reported to the guideline development group by the researcher and suggestions incorporated into the guidelines. Six focus group meetings were held with the community nurses in the implementation group (three in each of the two localities). Numbers attending varied from three to seven nurses at each meeting; some attending more than one and some participants attended all in their locality; in total there were 29 participants. Attendance was equally divided between health visitors and district nurses, two RGNs and two nurse visitors for the elderly attended. Shared ideas and comments in the groups appeared to influence others. Permission from group participants was obtained to report comments.

4.3.5 Statistical Analysis

Quantative data were analysed using SPSS software 10.1. Comparisons between the implementation and control groups and also within both groups, at Phase One were made by independent groups t-tests on mean scores for interval data and in all knowledge-based scores. Non-parametric tests included Pearson’s chi-squared test
that was used to examine any changes in the performance of the group for ordinal data. Fisher’s exact test was also used where ordinal data is provided by smaller samples (5 or fewer). Confidence levels of 95% were used throughout. Comparisons were made between community nurses’ role, education and length of time trained and their knowledge scores.

4.3.6 Qualitative Analysis

Qualitative data analysis was based upon the identification of core categories during the design of the study in order to answer the research questions, as described in Chapter 3 section 3.4. Under core category headings (level 1), at level 2 of the analysis, other themes emerged from examination of the interview material, which was handled in the following way. Taped interviews were transcribed verbatim and replayed several times to check accuracy of transcription and to become familiar with the content. The transcribed interviews were prepared for importing into the software programme called Nud*ist 4 (largely through formatting of line-spacing) and entered in “Word” form into a “Document Explorer” in the programme. This allows for comments from interviews to be copied into the other main part of the programme called a “Node Explorer”, which permits the construction of a “Tree root system” showing a hierarchy of core categories (nodes) and their offshoot themes. At the outset, the core categories: nurse roles; practice; education and training; and experience of caring for older people were entered as “nodes” into this section. Through close examination of the data, comments relevant to each core category were identified and copied across into each node. As material built up, further sub-categories or themes emerged to present an overall picture of each core category. The categories and themes are reported in Chapter Six section 6.1.
Several benefits arise from using the Nud*ist programme; where comments applied to several themes, they might simply be duplicated into other relevant nodes. Other advantages were that a high level of organisation of the data is possible; searches for similar themes can be carried out once coding has taken place to identify a particular comment within a node; and other documentary material and notes can be combined with the ongoing work. Nevertheless, at times there was the need to scan hard copy of themes and categories during the analysis, replicating more physical approaches to qualitative data analysis. The use of a software programme is unlikely to be a time-saving method (Mason 2001), and its use does not remove the necessity for thorough knowledge of the data.

4.3.7 Guideline Development

The development of guidelines for clinical practice in continence care within the Trust took place over seven months (October 1998 and April 1999) and overlapped the activities of both Phase One and Phase Two of the study (See Figure 3.1 Chapter Three section 3.1). In Phase One, the actions were for an expert panel of continence advisers and the researcher to develop clinical guidelines and at Phase Two a pilot among the implementation group provided stakeholder views from the community nurses on the use of new documentation and guidelines within their own practice over three months (See Chapter Eight, Phase Two). Baseline findings from Phase One also informed the content of the guidelines.

A guideline group comprising six continence advisers (from within the same health authority area), the researcher and occasionally the senior manager within the Trust with overall responsibility for continence services, met three-weekly for seven

The guiding principles in the guidelines arising from the data collection were these:-

- It was important to set positive objectives for patients and to involve them fully in their assessment. A patient questionnaire asking for details of their health problems, medical and continence history included details of the pattern of incontinence, symptoms, other physical problems and social, motivation and environmental factors was included in the assessment documents adapted from one in use elsewhere in the health authority.

- Documentation was designed so that physical observations and examination, including urine testing should be reported and a fluid input/output chart was included in the patient questionnaire.

- The guidelines needed to include clear guidance on how to identify different types of incontinence and contributory factors and advice on reversible causes.

- Care pathways that were identified would require clear guidance for treatments and when and to whom referral can appropriately be made.

The process of development and subsequent introduction of the guidelines was slow and it was necessary for the researcher to drive the process forward throughout. Timing was not such an issue within the Trust, but the study design required at least
a six-month period in use before evaluation could take place in order to establish whether improvement in outcome measures became established and whether they were sustained. Policy and practice guidelines developed within the Trust usually were required to undergo a separate review process by senior managers in a Nursing Practice Review committee, to approve their content and procedures before being put into general use. This process could be lengthy, over many months. Negotiation with the Locality Director resulted in the decision for the Nursing Practice Review committee to evaluate the guidelines concurrently with the implementation period within the implementation group and for the study findings to contribute to the review.

New assessment documentation was developed (Appendix B). This was in two parts: a patient questionnaire asking about signs, symptoms and feelings about their continence problems, their medical, obstetric and continence history. The patient was asked to complete a fluid intake and output chart over several days (five if possible), where all drinks, wet episodes, urine output and pad changes could be recorded. The second part was a nurse assessment document (see Appendix B), where details of a physical examination, including urine testing, and a synopsis of the patient’s underlying condition might identify the causes, contributory factors and type of incontinence, as well as possible treatments and further investigations could all be recorded.

4.4 Summary of situational analysis, research enquiry and method

This chapter reported the Enquiry and Method Stages of the Situational Analysis Phase (Phase One) of the study. It described the planning for and gathering of
baseline data from all community nurses employed within one health trust, who were divided into an implementation and a control group, with the intention of an intervention being offered to the implementation group during Phase Two of the study. A forcefield analysis of the Trust was also compiled using policy documents, formal and informal discussions with managers and staff.

Several data collection methods were utilised across the whole Trust: a nurse questionnaire, interviews and a document survey of continence assessment forms. Focus groups were used only among nurses in the implementation group and were a tool used overlapping both Phase One and Two. Another feature that also overlapped Phases One and Two was the development of clinical guidelines by a panel of continence advisers; the researcher, whose role was the active management of change, drove this process. Preparation for such a role had been given at the outset of the study, owing to it being part of the multi-centre STEP project. Baseline results from Phase One are reported in the following two chapters and were used to inform planning of the strategies for Phase Two of the study.
In this chapter quantitative findings derived from data collected by questionnaire and document survey during Phase One of the study are presented.

5.1 Questionnaire Findings

The questionnaire was sent to each of the 244 nurses, employed by the Trust. 105 questionnaires were returned, three questionnaires were spoiled, lacking identifiable localities or sufficient detail to examine them, so were discarded. Analysis was carried out upon 102 replies, which represented 43% of the total sample. Discussion of the issues arising from a low response rate takes place in Chapter Seven.

The findings are presented here in three Sections, Section One: biography and education, Section Two: nurses’ knowledge and Section Three: nurses’ attitudes.

5.1.1 Section One- Biography

Although there was low response rate to the questionnaire, responses across the Trust (shown in Table 5.1) were evenly distributed between implementation and control groups and for each nurse role except for RGNs. A low response rate may have arisen from misunderstanding among the registered general nurses (RGNs), working as community staff nurses, about the relevance for them to be included in the study, as they were the largest group of non-respondents. Certainly, at some nurse bases
their role appeared to be limited in responsibility for the assessment of people with continence problems. The Trust employed only six nurse visitors for the elderly (NVEs), explaining their small representation. Non-respondents were otherwise evenly distributed in terms of geographical locality and nurse role.

<table>
<thead>
<tr>
<th>Groups</th>
<th>District nurses</th>
<th>Health visitors</th>
<th>Nurse visitors for the elderly</th>
<th>RGNs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>1</td>
<td>16</td>
<td>6</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Control</td>
<td>3</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>16</td>
<td>13</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>54 (53%)</td>
<td>41 (40%)</td>
<td>5 (5%)</td>
<td>2 (2%)</td>
<td>102 (100%)</td>
</tr>
</tbody>
</table>

Table 5.1: Distribution of responses from all nurse groups to questionnaires

**Questions 1-3** asked the nurses to identify their nurse role, locality and full-time or part-time working pattern. District nurses were the bigger group in questionnaire responses (53%). Near equivalent proportions of district nurses worked part time (50%). There were also more part time nurses represented among all the respondents, with no statistical difference in the composition of the implementation and control groups (see Table 5.2).
Question 4: “How long have you been qualified as a registered general nurse?”

Table 5.3 shows that most nurses in the implementation group received their general training between 15-32 years ago and in the control group, 15-33 years ago, so the groups were similar in background.

<table>
<thead>
<tr>
<th></th>
<th>Fulltime</th>
<th>Part time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>District nurse</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation group</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Control group</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>27 (50%)</td>
<td>27 (50%)</td>
</tr>
<tr>
<td><strong>Health visitor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation group</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Control group</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>21 (53%)</td>
<td>19 (47%)</td>
</tr>
<tr>
<td><strong>NVE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation group</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Control group</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>RGN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation group</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Control group</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>48 (48%)</td>
<td>53 (52%)</td>
</tr>
</tbody>
</table>

*one non-respondent

Table 5.2 Full-time and part-time working hours reported by community nurses.

<table>
<thead>
<tr>
<th></th>
<th>RGN Training N=101</th>
<th>Professional Training N=95</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implementation group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>4-47</td>
<td>1-28</td>
</tr>
<tr>
<td>Mean</td>
<td>23</td>
<td>12.5</td>
</tr>
<tr>
<td>Median</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Mode</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>SD</td>
<td>8.68</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Control group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>6.5-40</td>
<td>0.2-35</td>
</tr>
<tr>
<td>Mean</td>
<td>23.8</td>
<td>12.8</td>
</tr>
<tr>
<td>Median</td>
<td>21.5</td>
<td>11.4</td>
</tr>
<tr>
<td>Mode</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>SD</td>
<td>8.71</td>
<td>7.9</td>
</tr>
</tbody>
</table>

Table 5.3: Number of years since RGN and community training took place.
Figure 5.1 compares the relative time since RGN training between the nurse groups and shows that for all groups except the NVEs, the mean number of years for each group was 22 years. The range of years since training for the district nurses was 3-40 years and for health visitors 6-40 years. One health visitor did not give a response to this question giving a total of 40 health visitor responses. For the NVEs, the mean was 32 years (range 20-52 years), suggesting they were a much older group. Overall, the community nurses be described as an older workforce, as the Audit Commission report (1999) similarly found for district nurses.

Table 5.3 shows most nurses in the implementation group had been qualified between 5-20 years and in the control group between 5-21 years. Again, as with RGN training, the implementation and control groups were similar. Table 5.3 shows a distribution where people have received their training more recently, compared to

**Figure 5.1 Length of time since RGN qualification among the community nurses**

**Question 5:** “How long have you been qualified as a district nurse/health visitor?”
when they received their RGN training. Comparison of the means across both groups for RGN training (23.4 years) and community training (12.6 years) show, as would be expected that community training was more recent, as at least two years experience is necessary before embarking on community qualifications, but the gap in years suggests that community nurses come to the role later in life. The mode number of years since professional qualification shows how recent this training was, especially in the implementation group (1) and across both groups 18 nurses had undertaken training within the last five years. 10 /18 (56%) of this group had undertaken training in the last two years.

However, Figure 5.2 shows that there was a lower median number of years since community qualification for the district nurses (10 years) than for the health visitors (15 years) which was statistically significant (t= -2.787, p=0.006), but not in years since RGN qualification, which suggests that the district nurses tended to undertake their community qualification later in their careers than health visitors.

Figure 5.2: Comparison of years since community qualification for district nurses and health visitors.
5.1.2 Section One-Education

Question 6: “Have you received any education/training in the promotion of continence/management of incontinence?”

99 nurses (97%) replied that they had received some further training. Table 5.4 shows that 20% of district nurses and 30% of health visitors had received continence education during their RGN training, which overall was 24%. There was no apparent difference in the amount of education in relation to when they trained. Only 6% of all respondent stated that they had received continence care education during their community nurse training (Table 5.5). The majority of these were health visitors.

<table>
<thead>
<tr>
<th></th>
<th>Implementation Group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District nurse</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Health visitor</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>RGN</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nurse visitor for the elderly</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>12</strong></td>
<td><strong>24 (24%)</strong></td>
</tr>
</tbody>
</table>

Table 5.4: Continence education during RGN training
Some nurses had undertaken a specific Promotion of Continence course (ENB 978)(Table 5.6).

<table>
<thead>
<tr>
<th></th>
<th>Implementation Group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District nurse</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Health visitor</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>RGN</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nurse visitor for the elderly</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>2</td>
<td>6 (6%)</td>
</tr>
</tbody>
</table>

* 7 non-respondents

**Table 5.5 Continence education during community nurse training**

Table 5.7 shows that the main source of education about continence care that nurses reported had been received post-registration and was provided by the continence advisers. 22% of the nurses who gave this response reported that the topics were concerning continence products only. 85% of the district nurses, 78% of the health visitors, 83% of the NVEs and both RGNs had all attended in-service sessions,
described as half-days (2-3 hours). There was no significant difference in numbers attending this training between the implementation and control groups. Many of the nurses had attended more than one (72%). The distribution of numbers of sessions attended was across both implementation and control groups. More district nurses than other groups had attended multiple sessions (Table 5.8).

<table>
<thead>
<tr>
<th>In-service training received from continence advisers</th>
<th>n= 85</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implementation group</td>
</tr>
<tr>
<td></td>
<td>n= 40</td>
</tr>
<tr>
<td>District nurse</td>
<td>21</td>
</tr>
<tr>
<td>Health visitor</td>
<td>16</td>
</tr>
<tr>
<td>RGN</td>
<td>0</td>
</tr>
<tr>
<td>Nurse visitor for the elderly</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
</tr>
</tbody>
</table>

**Table 5.7: In-service continence training received**

<table>
<thead>
<tr>
<th>Number of in-service sessions attended by community nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>n= 67</td>
</tr>
<tr>
<td>Implementation Group</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>1-2 sessions</td>
</tr>
<tr>
<td>District nurse</td>
</tr>
<tr>
<td>Health visitor</td>
</tr>
<tr>
<td>RGN</td>
</tr>
<tr>
<td>Nurse visitor for the elderly</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

**Table 5.8: Number of sessions attended with continence advisers (In-service training)**
24% of the nurses identified a variety of other sources of continence education (Table 5.11), including reading journals (5), attending link nurse sessions (5), and receiving training from physiotherapists (4). Care of the Elderly course (ENB 941) had been undertaken by one person.

All nurse groups and 97% of all nurses had taken part in continence training, although overall more district nurses had participated in continence training from all sources. Sixty-seven nurses gave details of the number of sessions they had attended with the continence advisers and district nurses attended the highest number of sessions with the continence advisers. 35 nurses replied that the majority (80%) of the training that they had attended had been within the previous two years. More district nurses had taken the promotion of continence course (ENB 978) and the care

<table>
<thead>
<tr>
<th>Source</th>
<th>Implementation group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enuresis Conference</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Enuresis training</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Sessions with physiotherapist within GP practice</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Training within another trust</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Link nurse sessions</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Reading professional journals</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>College-based study days</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ENB 941- Care of elderly people</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

12 (12%) 13 (13%)

Table 5.9 Other sources of continence training

of the elderly course (ENB) than other nurses, although more health visitors reported receiving continence training during their general and community nurse training.
Chapter Five: Phase One Quantitative Findings

Table 5.10: Nurses’ views on continence education

<table>
<thead>
<tr>
<th></th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District nurse</td>
<td>26</td>
<td>26</td>
<td>52 (97%)</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Health visitor</td>
<td>19</td>
<td>18</td>
<td>37 (90%)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NVE</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RGN</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>48</td>
<td>96 (94%)</td>
<td>1</td>
<td>4</td>
<td>5 (5%)</td>
</tr>
</tbody>
</table>

Table 5.10: Nurses’ views on continence education

Table 5.11: Nurses’ views on continence education

<table>
<thead>
<tr>
<th></th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District nurse</td>
<td>22</td>
<td>21</td>
<td>43 (80%)</td>
<td>2</td>
<td>7</td>
<td>9 (17%)</td>
</tr>
<tr>
<td>Health visitor</td>
<td>11</td>
<td>14</td>
<td>25 (61%)</td>
<td>9</td>
<td>4</td>
<td>13 (32%)</td>
</tr>
<tr>
<td>NVE</td>
<td>2</td>
<td>2</td>
<td>4 (80%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RGN</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>39</td>
<td>74 (73%)</td>
<td>11</td>
<td>11</td>
<td>22 (22%)</td>
</tr>
</tbody>
</table>

Table 5.11: Nurses’ views on continence education

The nurses were asked their views on the need for education in continence care in general and for themselves (Table 5.10) and their willingness to attend (Table 5.11). Most of the nurses across both groups felt the necessity for post-qualification education about continence care (94%), but fewer responded that they would take the
opportunity themselves (73%). Fewer health visitors were interested in gaining further continence education. Although the differences were not statistically significant, this finding might be of clinical importance. Would health visitors be worthwhile targets for future continence education, given their reported lack of interest, bearing in mind that the focus of their work is children under 5 years? However, they have considerable contact with postnatal mothers, who are a group vulnerable to UI and often seek health promotion advice from the health visitor.

<table>
<thead>
<tr>
<th>In what areas do you feel you would benefit from additional education?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation group n= 26</td>
</tr>
<tr>
<td>DN n=36</td>
</tr>
<tr>
<td>Keep up to date</td>
</tr>
<tr>
<td>Normal/ abnormal anatomy &amp; physiology</td>
</tr>
<tr>
<td>Causes</td>
</tr>
<tr>
<td>Assessment</td>
</tr>
<tr>
<td>Investigations</td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Criteria for referral</td>
</tr>
<tr>
<td>Catheters</td>
</tr>
<tr>
<td>Bladder washouts</td>
</tr>
<tr>
<td>Aids and equipment</td>
</tr>
</tbody>
</table>

**Table 5.12: Education deficits identified by the nurses**

The nurses were asked to identify gaps in their knowledge. Those that replied were clear about the deficits in their knowledge (Table 5.12). Current treatments were the commonest response across all nurse groups (30%), followed by knowledge about normal and abnormal anatomy and physiology (15%) and aids and equipment (15%). District nurses were proportionately more represented in all of these responses.
Interest in or expressed need for education on continence care was not unanimous. About one fifth of all the nurses with a community qualification replied that they would not take the opportunity for further education (22%): district nurses (17%), and health visitors (32%). Indicators from other data collection sources in the study showed that health visitors had a different approach to adult continence problems. Table 5.9 had shown that additional training received by health visitors related to childhood problems. One health visitor had commented that every adult client of hers needing continence care, she referred directly to the district nurse (Interview 10), another wrote that she referred all adults to the continence adviser (case 100).

The remaining questions in the section asked whether the nurses felt they had received adequate preparation for their role in caring for people who experience urinary continence problems and whether they had adequate knowledge to effectively care for patients with urinary continence problems. Their responses are shown in Tables 5.13 and 5.14.

<table>
<thead>
<tr>
<th></th>
<th>Adequate preparation</th>
<th></th>
<th>Preparation not adequate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implementation group</td>
<td>Control group</td>
<td>Total</td>
<td>Implementation group</td>
</tr>
<tr>
<td>District nurse</td>
<td>F/T 8</td>
<td>P/T 6</td>
<td>F/T 11 P/T 7</td>
<td>32</td>
</tr>
<tr>
<td>Health visitor</td>
<td>9 F/T 6</td>
<td>6 P/T 7</td>
<td>3 2</td>
<td>5</td>
</tr>
<tr>
<td>NVE</td>
<td>3 F/T</td>
<td>2 P/T 5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>RGN</td>
<td>17</td>
<td>15</td>
<td>18 13</td>
<td>63 (64%)</td>
</tr>
</tbody>
</table>

P/T= working part time F/T= working full time

Table 5.13: Nurses’ opinion about the adequacy of their preparation for their role in caring for people with urinary incontinence.
It is interesting to note that although a majority of nurses felt they had received adequate preparation for their role in the care of people with urinary incontinence (64%), more than half felt they did not have adequate knowledge to care for patients effectively (58%). This finding was evenly distributed across all nurse roles and across both implementation and control groups.

One important difference was apparent between those nurses working full-time and part-time. Whilst no differences were found in analysis of the data between each nurse group in their views about the adequacy of their knowledge, those working part-time felt significantly less prepared for their role. 22% of nurses working part time felt they had adequate preparation for their role, but 31% felt they did not (chi-squared p= 0.037). The same measurement for nurses working full time were 21% who felt adequately prepared, whereas 27% felt inadequately prepared (not statistically significant). There was also no statistical difference in the views held between nurse roles.

Table 5.14: Nurses’ opinion about the level of their knowledge to care for patients effectively

<table>
<thead>
<tr>
<th></th>
<th>Adequate knowledge</th>
<th>Inadequate knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implementation</td>
<td>Control group</td>
</tr>
<tr>
<td></td>
<td>group</td>
<td></td>
</tr>
<tr>
<td>District nurse</td>
<td>F/T</td>
<td>P/T</td>
</tr>
<tr>
<td>Health visitor</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>NVE</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>RGN</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 5.14: Nurses’ opinion about the level of their knowledge to care for patients effectively
5.1.3 Summary of Biography and Education

In all aspects of continence education the implementation and control groups were similar and no statistically significant differences were identified. Only approximately one quarter of the nurses reported some level of continence education during RGN training, but far fewer during their community qualification. The majority of the nurses reported receiving in-service continence education from the continence advisers (83%), although 22% reported that this was related to continence products rather than continence promotion. This represented the main source of education for the staff. The training mostly comprised one or two half-day sessions within the previous 1-2 years. More district nurses than other nurses had attended these and the majority of all respondents had attended more than one session. Some nurses (11%) had attended the Promotion of Continence course (ENB 978) and other sources of continence education were reported by 24%. As a group, district nurses had attended more post-qualification continence education, but this was very variable amongst individuals. Health visitors reported more continence education during general and community qualification. Most of the nurses acknowledged that post-qualification continence education was necessary (94%), but fewer would take the opportunity themselves (74%). The health visitors were least likely to take up post-qualification education (32%) than district nurses (17%). The main areas of knowledge deficit identified by the nurses were treatments, aids and equipment and normal and abnormal physiology.

Nurses across all professional roles, felt that they did not have adequate knowledge to care for people with urinary incontinence effectively, although most believed they had received adequate preparation for their existing role in continence care, except
for the nurses who worked part-time, comprising over half the community nurse workforce, who felt significantly less prepared for their role than full-time staff. This finding has important implications for perception of role in continence care and potential to enhance the care given and will be discussed later.

5.1.4 Section Two- Nurses’ Knowledge

**Question 1:** “Can you identify all the potential causes of urinary incontinence?” The results are presented in Table 5.15.
The most common responses were pelvic muscle weakness or damage (67%), infection (46%), prostate enlargement (36%), mobility problems (28%), faecal impaction (25%), uterine prolapse (24%) and the effects of medication (21%). More
general causes included neurological damage (50%) and bladder nerve damage (25%), although some nurses elaborated these further as the effects of paralysis (20%), multiple sclerosis (19%) and cerebral injury such as cerebro-vascular accidents (12%) and dementia (15%). A small percentage also identified that diabetes mellitus may have a neurological effect (5%). All other causes were reported in fewer than 5% of responses. Both implementation and control groups had a similar level of knowledge about causes as they identified similar numbers and types of causes. Results will therefore be grouped in most of the following Tables, but when reporting at Phase Three, before and after data will be presented together for comparisons to be made.

**Question 2:** asked for reasons why older people are more prone to urinary incontinence than younger people (Table 5.16). The answer that appeared most often was reduced mobility (41%), pelvic floor muscle weakness (31%), prostatic enlargement in men (23%), the effect upon women from the number of children borne; their multiparous state (19%) and from the mental condition of dementia in advanced age (19%). More nurses were aware of increased risk from immobility (41%).
Question 3: “Women are more prone to urinary incontinence than men, why do you think this is the case” The responses are shown in Table 5.17.

<table>
<thead>
<tr>
<th>Most common answers</th>
<th>N=102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced mobility</td>
<td>42</td>
</tr>
<tr>
<td>Pelvic floor muscle weakness</td>
<td>32</td>
</tr>
<tr>
<td>Prostate enlargement</td>
<td>23</td>
</tr>
<tr>
<td>Age changes</td>
<td>19</td>
</tr>
<tr>
<td>Dementia</td>
<td>19</td>
</tr>
<tr>
<td>Multiparous</td>
<td>19</td>
</tr>
<tr>
<td>Loss of muscle control</td>
<td>17</td>
</tr>
<tr>
<td>Other diseases</td>
<td>15</td>
</tr>
<tr>
<td>Loss of bladder tone</td>
<td>13</td>
</tr>
<tr>
<td>Infection</td>
<td>12</td>
</tr>
<tr>
<td>Use of diuretics</td>
<td>11</td>
</tr>
<tr>
<td>Constipation</td>
<td>10</td>
</tr>
<tr>
<td>Prolapse</td>
<td>9</td>
</tr>
<tr>
<td>Menopause</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 5.17 Reasons why women are more prone to urinary incontinence then men

<table>
<thead>
<tr>
<th>Most common answers</th>
<th>n=102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childbirth</td>
<td>81</td>
</tr>
<tr>
<td>Pelvic muscle weakness</td>
<td>39</td>
</tr>
<tr>
<td>Shorter urethra</td>
<td>16</td>
</tr>
<tr>
<td>Pelvic anatomy</td>
<td>13</td>
</tr>
<tr>
<td>More prone to urine infection</td>
<td>10</td>
</tr>
<tr>
<td>No advice after childbirth</td>
<td>8</td>
</tr>
<tr>
<td>Menopause</td>
<td>8</td>
</tr>
<tr>
<td>Prolapse</td>
<td>8</td>
</tr>
<tr>
<td>Other gynaecological problems</td>
<td>7</td>
</tr>
<tr>
<td>Reduced oestrogen</td>
<td>6</td>
</tr>
<tr>
<td>Hormonal differences</td>
<td>5</td>
</tr>
</tbody>
</table>
Questions 4 & 5 asked for the identification of treatments to restore continence and strategies to manage incontinence. The responses are presented together in Table 5.18. There were no substantial differences in the proportion of responses between the implementation and control groups in the number of strategies identified, except for one: physiotherapy were mentioned more by the control group (13%) than the implementation group (5%) which was a significant difference (chi-squared p=0.047). Overall identification of treatments and strategies was limited among the nurses. The most commonly identified treatment was pelvic floor muscle exercises (72%). About a third of the nurses identified medication (34%), behavioural treatments such as timed voiding (32%); bladder training (31%); and surgery (32%), although the second frequently most identified strategy was the use of absorbent pads (45%).
Although a wide range of treatments and strategies was identified by the nurses, overall only 9/35 (26%) were identified by more than a quarter of the respondents.
Questions 6-10 requested information about normal bladder physiology. Each offered a choice from four possible answers. The questions and the desired responses are given below and the results are displayed in Table 5.19. There was no statistical significance in the responses between the implementation and control groups.

Q6  In most people how much would you expect the bladder to hold at capacity?

*Bladder capacity in most people is 400-600mls.*

Q7  In most people how much urine needs to be in the bladder before the urge to pass urine is felt? *The answer is about 300mls.*

Q8  How many times would you expect an adult to pass urine within 24 hours?

*The normal range is considered to be 4-6 times.*

Q9  How often would you expect a young adult to pass urine in the night?

*The answer is 0-1 times.*

Q10 How much urine would you expect to find in the bladder immediately after passing urine? *The answer is less than 50mls.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 6</td>
<td>27 52%</td>
<td>25 48%</td>
<td>52 52%</td>
</tr>
<tr>
<td>Question 7</td>
<td>29 48%</td>
<td>31 52%</td>
<td>60 59%</td>
</tr>
<tr>
<td>Question 8</td>
<td>37 74%</td>
<td>42 81%</td>
<td>79 78%</td>
</tr>
<tr>
<td>Question 9</td>
<td>46 92%</td>
<td>51 98%</td>
<td>97 95%</td>
</tr>
<tr>
<td>Question 10</td>
<td>7 14%</td>
<td>12 23%</td>
<td>19 19%</td>
</tr>
</tbody>
</table>

Table 5.19 Correct responses to questions six to ten
A comprehensive understanding of normal bladder physiology, which would be necessary to interpret information from a bladder chart during a patient assessment, was not widely held by the respondents.

**Vignette 1** (Table 5.20), a relatively high percentage of nurses in both groups, correctly identified pelvic floor muscle weakness as the likely cause for this patient. A high proportion of each group also identified the appropriate treatment necessary.

<table>
<thead>
<tr>
<th>Causes and care identified</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic floor muscle exercises</td>
<td>38 76%</td>
<td>45 87%</td>
<td>82%</td>
</tr>
<tr>
<td>Pelvic floor muscle weakness</td>
<td>39 78%</td>
<td>41 79%</td>
<td>80%</td>
</tr>
<tr>
<td>GP referral</td>
<td>17 34%</td>
<td>14 27%</td>
<td>31%</td>
</tr>
<tr>
<td>Urine test</td>
<td>15 30%</td>
<td>15 29%</td>
<td>30%</td>
</tr>
<tr>
<td>Parity</td>
<td>17 34%</td>
<td>12 23%</td>
<td>29%</td>
</tr>
<tr>
<td>Refer to physiotherapist</td>
<td>6 12%</td>
<td>9 17%</td>
<td>15%</td>
</tr>
<tr>
<td>Prolapse</td>
<td>9 18%</td>
<td>5 10%</td>
<td>14%</td>
</tr>
<tr>
<td>Physical examination</td>
<td>5 10%</td>
<td>7 14%</td>
<td>12%</td>
</tr>
<tr>
<td>Provide pads</td>
<td>4 8%</td>
<td>5 10%</td>
<td>9%</td>
</tr>
<tr>
<td>Referral to continence advisers</td>
<td>1 6%</td>
<td>4 8%</td>
<td>7%</td>
</tr>
<tr>
<td>Fluid chart</td>
<td>0 0%</td>
<td>1 2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

to be pelvic floor muscle exercises. Assessment features such as urine testing (30%) and physical examination (6%) were included and 52% identified a professional to whom they would refer the patient either the GP, continence adviser or physiotherapist.
Vignette 2 (Table 5.21) A high percentage of nurses in both groups responded accurately that the male patient presented symptoms of prostate enlargement. 82% of nurses would refer to the GP and/or the urologist (16%). This would have been their main action. Whilst 19% would check the patient’s bowels, only 10% mentioned to carry out a urine test (10%) or physical examination (5%). 13% would offer pads to the patient, but it is not clear whether this would have been on a temporary basis while other treatment was sought or as a long-term management solution.

<table>
<thead>
<tr>
<th>Causes and care identified</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate enlargement</td>
<td>44  88%</td>
<td>43  83%</td>
<td>86%</td>
</tr>
<tr>
<td>Refer to GP</td>
<td>43  86%</td>
<td>40  77%</td>
<td>82%</td>
</tr>
<tr>
<td>Check bowels</td>
<td>7   14%</td>
<td>12  23%</td>
<td>19%</td>
</tr>
<tr>
<td>Refer to urologist</td>
<td>8   16%</td>
<td>8   15%</td>
<td>15%</td>
</tr>
<tr>
<td>Urine test</td>
<td>5   10%</td>
<td>9   17%</td>
<td>14%</td>
</tr>
<tr>
<td>Provide pads</td>
<td>7   14%</td>
<td>6   12%</td>
<td>13%</td>
</tr>
<tr>
<td>Blockage</td>
<td>4   8%</td>
<td>7   14%</td>
<td>11%</td>
</tr>
<tr>
<td>Physical examination</td>
<td>1   2%</td>
<td>4   8%</td>
<td>6%</td>
</tr>
<tr>
<td>Catheter</td>
<td>1   2%</td>
<td>2   4%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Vignette 3 (Table 5.22) Fewer than half of the respondents identified the cause as overactive bladder and two nurses did not give responses. More nurses in the implementation group, however, identified infection as the reason for the symptoms (46%) than in the control group (29%) although this difference was not statistically significant. Similarly, more nurses in the implementation group identified sending a mid-stream urine sample for culture (36%) than in the control group (15%), which was statistically significant (chi-squared p=0.017). Overall 17% identified neuropathy as a potential cause. Assessment activities included urine testing (14%) and 8% a physical examination. Only 9% would embark upon a fluid chart, yet this is a major component of continence assessment. Only 10% in the implementation group identified a major treatment of bladder training, although more in the control group identified the treatment (29%), which showed a significant difference (also chi-squared p=0.017). 26% of the nurses would provide pads and 46% refer to the GP. Of all three vignettes, the nurses appeared less sure of the potential causes and treatments for overactive bladder.

<table>
<thead>
<tr>
<th>Causes and care identified</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overactive bladder</td>
<td>19 38%</td>
<td>26 50%</td>
<td>44%</td>
</tr>
<tr>
<td>Refer to GP</td>
<td>23 46%</td>
<td>20 39%</td>
<td>43%</td>
</tr>
<tr>
<td>Infection</td>
<td>23 46%</td>
<td>15 29%</td>
<td>38%</td>
</tr>
<tr>
<td>Mid-stream urine sample</td>
<td>18 36%</td>
<td>8 15% *</td>
<td>25%</td>
</tr>
<tr>
<td>Provide pads</td>
<td>13 26%</td>
<td>7 14%</td>
<td>20%</td>
</tr>
<tr>
<td>Neuropathy, including MS</td>
<td>6 12%</td>
<td>11 21%</td>
<td>17%</td>
</tr>
<tr>
<td>Bladder retraining</td>
<td>5 10%</td>
<td>15 29% **</td>
<td>15%</td>
</tr>
<tr>
<td>Urine test</td>
<td>6 12%</td>
<td>8 15%</td>
<td>14%</td>
</tr>
<tr>
<td>Fluid chart</td>
<td>3 6%</td>
<td>6 11%</td>
<td>9%</td>
</tr>
<tr>
<td>Physical examination</td>
<td>4 8%</td>
<td>4 8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

* chi-squared p= 0.017, ** chi-squared p= 0.017.
5.1.5. Summary of Nurses’ Knowledge

As evidenced in the literature review, urinary incontinence has many potential underlying causes, types, and appropriate treatments, all of which were identified by one or more respondents. However, most of the responses reported the major causes associated only with stress incontinence, obstruction and transient causes. In responses to all questions, there was no mention of overactive bladder or mixed incontinence, which is the major symptom of UI, especially among elderly people. Moreover, responses to questions six to ten indicated that features of normal bladder physiology were not well known by the nurses, generally indicating a limited knowledge base to support clinical decision-making. Lack of knowledge among the nurses confirms what they themselves had identified in the earlier section of the questionnaire: a lack of basic education in continence care and lack of knowledge to effectively care for patients.
5.1.6 Section Three-Nurse Attitudes

This section of the questionnaire presented a series of thirteen statements asking for the nurses’ level of agreement, in a Likert scale ranging from 1:agree to 5:disagree. Seven statements offered negative comments and six statements offered positive comments. Coding later re-ordered the scoring of each positive statement (2,5,8,9,12,13,) so that a higher score represented positive statements. The negative and positive statements were spaced throughout the questionnaire and applied to each of the four areas of enquiry. These areas were:

- Nurses’ role (statements 1,5,12 and 13)
- Attitudes to older people (statements 6,7,9,11)
- Investigations of UI (statements 2,4,)
- Treatments for UI (statements 3,8,10)

Interpretation of the scores for each statement can therefore be read as the higher the score the more positive the attitude statement. The score possible for each statement ranged from 13-65 for each respondent. Responses to questions one to thirteen are presented in Table 5.23. Comparisons of mean scores (t-test) for each statement were made between the implementation and control group and the responses were found to be similar.
## Table 5.23: Frequency distribution of nurses’ responses to attitude questionnaire

<table>
<thead>
<tr>
<th>Q.</th>
<th>Scores</th>
<th>Implementation group</th>
<th>Control</th>
<th>Total</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>Mean score</td>
<td>SD</td>
<td>Mean score</td>
<td>SD</td>
</tr>
<tr>
<td>Q1. The nurse’s primary role in caring for patients with incontinence should be concerned with supplying appropriate aids. n=102</td>
<td>4 3 15 32 48</td>
<td>4.0 1.0</td>
<td>4.3 1.0</td>
<td>4.1 1.0</td>
<td></td>
</tr>
<tr>
<td>Q2. Incontinence should always be investigated. n=101</td>
<td>0 2 3 9 87</td>
<td>4.8 0.4</td>
<td>4.8 0.7</td>
<td>4.8 0.6</td>
<td></td>
</tr>
<tr>
<td>Q3. Two hourly toileting and incontinence aids are the only realistic ways to promote continence for older people. n=99</td>
<td>2 8 19 26 44</td>
<td>4.1 1.0</td>
<td>4.0 1.1</td>
<td>4.0 1.1</td>
<td></td>
</tr>
<tr>
<td>Q4. Patients are incontinent due to laziness. n=102</td>
<td>1 1 10 7 83</td>
<td>4.6 0.9</td>
<td>4.7 0.6</td>
<td>4.7 0.8</td>
<td></td>
</tr>
<tr>
<td>Q5. It is important for all nurses to have a good understanding of the causes of incontinence. n=102</td>
<td>1 1 2 8 90</td>
<td>4.8 0.7</td>
<td>4.9 0.5</td>
<td>4.8 0.6</td>
<td></td>
</tr>
<tr>
<td>Q6. Elderly people with long standing incontinence problems do not usually require investigation. n=101</td>
<td>3 2 6 24 66</td>
<td>4.3 1.0</td>
<td>4.6 0.8</td>
<td>4.5 0.9</td>
<td></td>
</tr>
<tr>
<td>Q7. Incontinence is an inevitable part of the ageing process. n=102</td>
<td>0 2 12 21 67</td>
<td>4.5 0.8</td>
<td>4.4 0.8</td>
<td>4.5 0.8</td>
<td></td>
</tr>
<tr>
<td>Q8. Continence is a realistic goal for many incontinent people. n=102</td>
<td>1 7 19 35 40</td>
<td>4.0 1.0</td>
<td>4.1 1.0</td>
<td>4.0 1.0</td>
<td></td>
</tr>
<tr>
<td>Q9. Health education is as important for the older people as for younger people n=102</td>
<td>0 1 1 11 89</td>
<td>4.8 0.5</td>
<td>4.9 0.4</td>
<td>4.8 0.5</td>
<td></td>
</tr>
<tr>
<td>Q10. I find it demoralising looking after incontinent patients, since there is little I can do to help n=96</td>
<td>0 9 10 19 58</td>
<td>4.4 0.9</td>
<td>4.2 1.0</td>
<td>4.3 1.0</td>
<td></td>
</tr>
<tr>
<td>Q11. Incontinence is usually more distressing for a younger person than for someone who is elderly. n=102</td>
<td>2 10 9 18 63</td>
<td>4.2 1.1</td>
<td>4.3 1.1</td>
<td>4.3 1.1</td>
<td></td>
</tr>
<tr>
<td>Q12. Continence issues are an important part of nursing care. n=102</td>
<td>0 1 5 15 81</td>
<td>4.8 0.6</td>
<td>4.7 0.6</td>
<td>4.7 0.6</td>
<td></td>
</tr>
<tr>
<td>Q13. It is important to address the cause of incontinence when planning nursing care n=100</td>
<td>0 0 1 9 90</td>
<td>4.9 0.3</td>
<td>4.9 0.4</td>
<td>4.9 0.3</td>
<td></td>
</tr>
<tr>
<td>Total scores</td>
<td>57.7 4.68</td>
<td>58 4.72</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These questions have a reversed score, so that more positive responses score higher and negative responses score lower.
Three statements that applied to the nurses’ role achieved highest agreement among the nurses, with the smallest recorded standard deviation (SD) from the mean. The nurses agreed that it is important to address the causes of UI when planning care (mean =4.9, SD= 0.3); that it is important to have a good understanding of the causes of UI (mean=4.8, SD=0.6); that continence issues are an important part of nursing care (mean=4.7, SD=0.6). However, fewer positive responses were made to statement 1 that the nurse’s primary role in caring for patients with UI should be concerned with supplying appropriate aids (mean=4.1, SD=1.0), These responses suggest that the nurses think they should be well-informed but do not have an active role in providing interventions.

For the statements specifically mentioning elderly people (6,7,9,11) there was consistent agreement among the nurses. Health education for elderly people (statement 9) scored a high mean (4.8, SD =0.5), however, the mean scores were lower with wider standard deviation for statements that elderly people with long-term UI do not usually require investigation (4.5, SD=0.9); that incontinence is an inevitable part of ageing (4.5, SD= 0.8); and the distress that UI caused to elderly people was less compared to younger people (4.3 SD=1.1). The nurses’ views could be interpreted as different for elderly people from younger adults with UI that translated into less positive attitudes towards treating their UI problems.

Nurses’ views about investigating UI were addressed in statements 2 and 4. There was a high mean score and close agreement for statement 2 that incontinence should always be investigated (mean=4.8, SD=0.6), and a high mean score but wider range of opinion that patients are not incontinent due to laziness (4.7 SD=0.8). These
responses would seem to represent positive views towards the investigation of UI in general.

Treatments were the subject of statements 3, 8 and 10. These attitudes represent two of the least positive responses from the nurses and the third received the least number of responses: statement 10 (n-96), which concerned feeling demoralised when looking after patients with UI. The mean score for this statement was 4.3 with a SD=1.0, indicating widespread opinion that the work was considered to be fairly demoralising, since there was little that they could do to help. The lowest mean scores (4.0) were achieved in response to statements 3 and 8, that two-hourly toileting and aids are the only realistic ways to promote continence for older people and that continence is a realistic goal for many people with UI. It was found in Section 1& 2 that nurses have limited knowledge of causes of UI and strategies to treat UI, and therefore it is, perhaps, unsurprising that they also have a relatively poor opinion of the potential for treating UI, especially in older people.

5.1.7 Summary of Nurses’ Attitudes

In summary, responses from the nurses’ attitudes questionnaire indicate that the majority of the community nurses have positive rehabilitative views towards patients with urinary incontinence, its investigation, treatment and management, shown by the mean scores not dipping below 4.0 and the standard deviation not exceeding 1.1. This was found across both the implementation and control groups. However, there seemed a lack of conviction in offering treatment to all patients and that continence
might not be a realistic goal. The nurses were aware of a limited range of strategies for patients, so that two-hourly toileting and providing continence aids as a main strategy were still considered to be appropriate. Less rehabilitative views towards older people compared to younger people were evident, although it is recognised that the question format did not permit further exploration of the reasoning behind the responses given.

5.2 Document Survey Findings

Continence forms for new elderly patients who had been assessed in the previous two months were examined during the document survey. There were 41 continence forms, 19 from the implementation group and 22 from the control group, which fulfilled the inclusion criteria: new elderly patients (over 65 years) assessed in the previous two months. (See Chapter 4 section 4.6).

The first observation to note about the document survey of continence assessment forms was that the main function of the form currently in use during Phase One was to serve as an order form for continence products from the continence advisory service. There was little space for nurses to record patient details or make comments (Appendix D). The form comprised one side of A4 size paper, with less than half of that space available to record details of the continence problem and much information was presented as tick boxes. Nevertheless, many of the nurses who completed the forms managed to include further assessment detail upon the forms.

The findings from the survey are shown in Table 5.24 and Figure 5.3. These show that none of the assessment documents that were examined had been fully completed. 8/13 criteria were recorded in fifty percent or more of the new patient assessments.
The remaining criteria were recorded far fewer times. These included urine testing (19%), taking a mid-stream specimen of urine (MSU) for microbiological testing (2%) and patient treatments (17%). The presence of urine infection was not recorded in any assessments.

There were no statistically significant differences, or trends observed in the recording of assessment data between the implementation group (19 forms) and the control group (22 forms).

<table>
<thead>
<tr>
<th>Features appearing on assessment form</th>
<th>Number Recorded</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of incontinence (Stress, urge etc)</td>
<td>34</td>
<td>83%</td>
</tr>
<tr>
<td>Environment/equipment</td>
<td>34</td>
<td>83%</td>
</tr>
<tr>
<td>Bowel problem Yes/no</td>
<td>29</td>
<td>71%</td>
</tr>
<tr>
<td>Types of medication diuretics/analgesics</td>
<td>23</td>
<td>57%</td>
</tr>
<tr>
<td>Other illnesses, e.g. arthritis/dementia/CVA</td>
<td>28</td>
<td>69%</td>
</tr>
<tr>
<td>Fluid intake</td>
<td>22</td>
<td>55%</td>
</tr>
<tr>
<td>Urological/abdominal surgery yes/no</td>
<td>19</td>
<td>48%</td>
</tr>
<tr>
<td>Times toileted in the day</td>
<td>22</td>
<td>52%</td>
</tr>
<tr>
<td>How many times pad changed</td>
<td>19</td>
<td>45%</td>
</tr>
<tr>
<td>Number of times incontinent</td>
<td>21</td>
<td>50%</td>
</tr>
<tr>
<td>Urine test</td>
<td>8</td>
<td>19%</td>
</tr>
<tr>
<td>Treatment</td>
<td>7</td>
<td>17%</td>
</tr>
<tr>
<td>Mid-stream urine sample</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 5.24 Survey of continence assessments carried out upon new elderly patients (n=41)
The continence assessment form could contain, if completed fully, useful information about the patient’s UI, as one copy was retained by the assessing nurse and the second copy was sent to the continence advisers. Therefore there would have been the opportunity for the continence advisers to comment upon features of the patient’s condition, which occurred regularly either if prompted by the assessing nurse, or if the form was incomplete, initiating a query from the continence advisers.

Figure 5.3: Survey of continence assessment documents (n=41).
5.3 Summary of Quantative Findings

In all aspects measured in the nurse questionnaire and document survey the implementation and control groups were similar and no statistically significant differences were identified. In-service continence education from the continence advisers (83%) represented the main source of education for the staff, although 22% reported that this was related to continence products rather than continence promotion. As a group, district nurses had attended more post-qualification continence education, but this was very variable amongst individuals; the majority of all respondents had attended more than one session. Some nurses (11%) had attended the Promotion of Continence course (ENB 978) and other sources of continence education were reported by 24%. Only approximately one quarter of the nurses reported some level of continence education during RGN training, but far fewer during their community qualification. Health visitors reported more continence education during general and community qualification. Most of the nurses acknowledged that post-qualification continence education was necessary (94%), but fewer would take the opportunity themselves (74%). The health visitors were least likely to take up post-qualification education (32%) than district nurses (17%).

Nurses across all professional roles, felt that they did not have adequate knowledge to care for people with urinary incontinence effectively; the main areas of knowledge deficit identified by the nurses were treatments, aids and equipment and normal and abnormal physiology. Lack of basic education in continence care and lack of knowledge to effectively care for patients identified by the nurses themselves was confirmed in responses to the knowledge section of the questionnaire. Urinary incontinence has many potential underlying causes, types, and appropriate
treatments, all of which were identified by one or more respondents. However, normal bladder physiology were not well known by the nurses; identification of causes of UI were limited to stress incontinence, obstruction and transient causes; no mention was made of overactive bladder or mixed incontinence, which are the major symptoms of UI, especially among elderly people. Responses generally indicated a limited knowledge base to support clinical decision-making although most believed they had received adequate preparation for their existing role in continence care. This finding has important implications for perception of role in continence care and potential to enhance the care given.

In general, responses from the nurses’ attitudes questionnaire across both the implementation and control groups indicated that the majority of the community nurses had positive rehabilitative views towards patients with urinary incontinence, its investigation, treatment and management. However, once again the nurses were aware of only a limited range of strategies for patients; two-hourly toileting and providing continence aids as a main strategy were still considered to be appropriate; less rehabilitative views towards older people compared to younger people were evident. There seemed a lack of conviction in offering treatment to all patients and that continence might not be a realistic goal. This approach was translated into practice in that none of the continence assessment forms examined in the document survey had been fully completed, a practice with no difference was found between the implementation group and the control group in this respect. In the absence of documentary audit or set standards to follow, drift in complying with completion of assessment documentation could be regarded as inevitable.
Chapter Six

Phase One: Situational Analysis and Results

Qualitative Findings from Interviews and Focus Groups

In this chapter the findings from nurse interviews and focus groups are presented. In some ways the two methods are connected and complementary, with overlap in some aspects of information from individuals and from small groups. As explained in Chapter Three section 3.4.5, the methods are distinct, although they aim to discover the personal and groups’ experiences, which may be corroborated by the findings of the other method. Results are presented separately.

6.1 Interviews with community nurses: introduction

Interview findings concerning roles, practice, education and attitudes from semi-structured interviews conducted with twenty-nine community nurses in one community NHS Trust are presented here. The design was described in Chapter Three and the method in Chapter Four section 4.7. The interview schedule is in Appendix C. Twenty-nine community nurse interviews were transcribed. Sixteen district nurses, eight health visitors, three RGNs and two nurse visitors for the elderly were interviewed. The distribution of roles and localities of the nurses who were interviewed are shown in Table 6.1.
### Table 6.1: Distribution of the sample of community nurses who were interviewed

<table>
<thead>
<tr>
<th>Locality</th>
<th>District Nurses</th>
<th>Health Visitors</th>
<th>RGN</th>
<th>NVE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1/ Implementation</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Site 2/ Implementation</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Site 3/ Control</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Site 4/ Control</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>8</strong></td>
<td><strong>3</strong></td>
<td><strong>2</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

NVE = nurse visitor for the elderly. RGN= Registered General Nurse

One complete interview was lost. When several interruptions occurred during tape-recording of the interview, the recording volume became wrongly adjusted, so that only the first few minutes survived.

Forty initial themes were identified from close reading and coding of the interview transcripts during examination in the software programme Nud*ist (see chapter four section 4.3.6). These were then refined further into eighteen coded themes, which could be discussed under core category headings addressing the initial research questions (see Chapter 3 Section 3.4). There were four core categories.

1. **Community nurse roles in continence care:**

This core category contained seven themes: the descriptions from health visitors, nurse visitors for the elderly, registered general nurses, and district nurses about their own roles, what they thought the expectations of firstly continence advisers and then GPs were of the nurses’ role and lastly their experience of the link nurse role. The link nurse role was a general description for any nurse who attended
regular information-giving sessions about new aids and equipment and continence products run by the continence advisers and undertook some responsibility in disseminating this to other staff. The role of the continence adviser was described in Chapter 2 Section 2.11.

2. **Nursing practice:**

   This core category included five themes: assessment of continence status, diagnosis, active treatment, management of continence problems and routes of referral.

3. **Education and training:**

   This core category theme comprised three themes: existing training, deficits in knowledge and training needs.

4. **Caring for older patients:**

   This core category was composed of three themes: nurses’ knowledge of ageing, health problems that can arise with older people and approaches to different age groups of patients.

6.2 **Community nurse roles in continence care**

   The roles that each individual nurse performed in providing continence care were described. Professional roles that were described were all different but with some overlap in provision of continence care for elderly people. Questions were asked of
Chapter Six: Phase One: Qualitative Findings

Qualitative Findings -

All the interviewees about a comprehensive range of activities performed in continence care. The nurses were asked which activities they felt could most appropriately be undertaken by the nurses, which by the GP and which the continence adviser. The results are presented in Table 6.2 and are reported in each section about nurse roles.

<table>
<thead>
<tr>
<th>Activity</th>
<th>District Nurse</th>
<th>Health Visitor</th>
<th>NVE</th>
<th>GP</th>
<th>Continence Adviser</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing</td>
<td>27</td>
<td>7</td>
<td>2</td>
<td>11</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Determining cause</td>
<td>21</td>
<td>5</td>
<td>1</td>
<td>24</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Suggesting suitable drug therapy</td>
<td>6</td>
<td>1</td>
<td></td>
<td>24</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Teaching pelvic floor exercises</td>
<td>26</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>12</td>
<td>Physiotherapist 5</td>
</tr>
<tr>
<td>Teaching bladder re-education</td>
<td>20</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Physiotherapist 4</td>
</tr>
<tr>
<td>Teaching intermittent self- catheterisation</td>
<td>24</td>
<td>1</td>
<td></td>
<td>1</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Teaching about the use of urinary sheaths</td>
<td>24</td>
<td>1</td>
<td></td>
<td>1</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Teaching about the use of absorbent pads</td>
<td>25</td>
<td>5</td>
<td>2</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Teaching about urethral catheter care</td>
<td>26</td>
<td>1</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Advising about dietary/fluid intake</td>
<td>24</td>
<td>7</td>
<td>2</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Select &amp; fit absorbent products</td>
<td>24</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Select &amp; fit urinary sheath</td>
<td>25</td>
<td>2</td>
<td></td>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Discuss with the patient their perception of the problem</td>
<td>24</td>
<td>8</td>
<td>2</td>
<td>13</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Suggest suitable adaptations to the living environment to promote continence</td>
<td>21</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>Occupational Therapist 13</td>
</tr>
<tr>
<td>Teach the carer how to assist the patient to manage their continence problems</td>
<td>25</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>Occupational Therapist 2</td>
</tr>
</tbody>
</table>

NVE= nurse visitor for the elderly

Table 6.2: Activities performed in continence care: Community nurses’ opinions on the competence of each healthcare professional to perform activities in continence care
6.2.1 Health visitors

All of the eight health visitors interviewed reported contact with people experiencing urinary continence problems, but this did not usually include elderly people. Both health visitors in the control group and one other reported limited contact with elderly people. People for whom they offered continence care were disabled people under the age of 60 years, women in the postnatal period, children with special needs, or children with enuresis. One health visitor described her involvement in continence care thus:

[Interview 14 : 50 - 87] health visitor
I usually deal with special needs children. … none of us are really that aware of what is out there for the elderly, it is not an age group that we really particularly are used to dealing with…… I think we are specifically geared up to children and families.

Lack of contact with elderly people seemed to include lack of awareness of services available for elderly people and how to arrange care. Two other health visitors reported limited knowledge. However, the three health visitors who had contact with elderly people with continence problems were better informed about care within their primary care team. This health visitor received occasional referrals:

[Interview 16 : 4 - 9]
Well, we have a policy here at the surgery whereby if the District Nurse is not involved then the Health Visitor does get involved. So, that age group is very much on a referral basis, I wouldn't say we would go and look for anybody, but it is when we get a referral. So, I have got two or three elderly patients all the time to deal with who have urinary incontinence.

The other two health visitors carried out over 75 year health checks, which was an optional role for them. It seems that the responsibility for screening elderly people was not a key role or a priority during busy periods, but a referred patient would be visited. However, most patients were referred to district nurses. The health visitors’
involvement in assessment was limited in that they did not carry out practical “hands on” care or the physical examination of patients.

[Interview 11 : 266 - 275 ]
The elderly, they are not referred to me, most are referred to district nurses, but it doesn't need to be. Health visitors could do it too, certainly from an assessment point of view, but when it comes to hands on training how to use sheaths and things like that. I just have this thing that you should have some sort of uniform on - I don't know why, because doctors don't. District nurses are more hands on.

The lack of a practical role for health visitors was confirmed by the responses from all the community nurses and shown in Table 6.2. The activities that all the community nurses considered health visitors most suited to provide were those involving explanation and advice and least involving practical care.

In summary, it appeared that the health visitor role was limited in the assessment and care of elderly people with continence problems. Fewer than half the health visitors had any contact with elderly people and it was not a key role for them. The role was described as mainly for the provision of continence pads or the patient was referred onward to another member of the primary health care team for physical examination and management, although two health visitors made reference to treatments for stress incontinence that they felt able to perform.

6.2.2 Nurse visitors for the elderly

Both nurse visitors for the elderly, one each from the implementation and control groups, described a role in continence care for elderly people that was mostly for social support and not “hands on”. Referral was made to district nurses if any physical care needs or the need for active or ongoing management was identified.
Provision of continence products was reported to be the usual outcome of “assessment”, which to both interviewees seemed to be synonymous with completing the order form for continence products.

[Interview 29 : 162 - 168] I have an odd role because I am not supposed to be hands on at all, but I sometimes find myself in that situation, but I don't always have the right equipment with me, so I perhaps wouldn't do it.

[Interview 29 : 5 - 11] I take the referral and probably do a visit, almost certainly and do what we call continence assessment. There is a form - strict guidelines that we have to follow if we are going to supply pads.

[Interview 3: 4 - 7] I have to assess them, do an incontinence assessment for our continence advisory service and then order what seems appropriate.

In summary, nurse visitors for the elderly were considered by all the community nurses and by themselves, to have the least active role in continence care for elderly people (see Table.6.2). Their role did not extend beyond ordering continence pads and they were not actively involved in patient assessment or providing follow-up support to patients.

6.2.3 Registered General Nurses

RGNs usually worked under the supervision of the district nurses. The three interviewees described widely different roles. One nurse from the control group appeared to have no involvement in continence assessment herself:

[Interview 28 : 4 - 9] Assessment [is] made by district nurses, via the GP or from the hospitals etc. or from the multi-disciplinary team, for a full assessment of their needs and the ordering for the provision of pads associated with their needs. Also providing catheter care as appropriate.

Whilst another RGN from the control group had a more responsible role:

[Interview 1: 5 - 10]
I was the continence link nurse at the last practice I worked at, which meant I did all the initial assessments, all the reassessments and all the ordering and anything that was associated with continence management of the surgery, apart from children, obviously I did the over 65s as a link nurse for one nursing team.

The third RGN (Interview 13), from the implementation group, described her role as making assessments that were overseen by the district nurse, although later on it became apparent that she had a considerable role in continence care (See Diagnosis in section 6.3.2). The RGNs who were interviewed were involved in continence care for elderly people in various ways and with varying degrees of responsibility delegated by their supervising district nurse. They did not however identify their own activities or skills in Table 6.2, but attributed most ability to perform each activity to the district nurses, as did all the interviewees. An alternative explanation might be that the community nurses interpreted the roles of district nurses and RGNs as the same with regard to continence care. Indeed, there was evidence that the RGN role was especially involved in continence care, as it was identified in interviews with two of the district nurses that two further RGNs were performing active roles in continence care as representatives of their team at link nurse meetings:

[Interview 4 : 9 - 12 ] district nurse
We have got one nurse who tends to specialise in it here in this practice and we usually send her in to do the assessment.

[ 57 - 60 ] we do use her a lot, she goes to all the training days etc.

[146 - 147 ] C…is probably more up to date because she is the link nurse.

C was the community RGN for that practice.

Therefore, based upon a variety of references to a clear role for RGNs, it appeared that the role of the RGNs and the district nurses were closely connected in the provision of continence care to elderly people within this Trust.
In summary, the role of RGNs in the district nursing team seemed to vary across the Trust, with regard to continence care, but there were several descriptions of a responsible, and even a co-ordinating role in the assessment and management of ongoing continence care, within district nursing teams, where the district nurses delegated responsibility for continence care to RGNs. This seemed to be based upon individuals rather than any policy or strategy.

### 6.2.4 District Nurses

District nurses were the nurse group most clearly involved in continence care for elderly people in the community. They were attributed by all the community nurses interviewed and by themselves to be the most suitable professional to perform every activity listed in Table 6.2 except for suggesting drug therapy; in particular, assessment, all of the practical active management skills to deal with functional problems due to immobility, care of indwelling catheters, sheaths and teaching pelvic floor exercises. The district nurses made definite statements about their responsibility for assessment, such as:

[Interview 9 : 48 - 50]

Assessing incontinence care, I think it is the district nurses role.

Ten out of the sixteen district nurses interviewed were able to provide comprehensive accounts of the content of thorough continence assessments. Both implementation (4 examples) and control groups (6 examples) were evenly represented in the accounts. The following quote is representative of the extent of assessment aimed at by the majority of district nurse.

[Interview 6 : 9 - 16 ]implementation group
Rather than the doctor, they seem to come straight through to us. Really you are assessing them to see if there is any reason behind the incontinence, if it [the problem] is a UTI for instance or something like that, you are assessing to see if they need it first of all and if they do need continence aids, which is the best and most appropriate for them. If there is any way that we can change the situation with medication or exercises or anything like that. We are really assessing what if anything is appropriate to the particular patients. I think that is really the role of the district nurses. We are usually the first line of defence for patients.

This comment also demonstrates the district nurses’ role in handling referrals, perhaps seeing the patient before any other health professional. District nurses were accustomed to handling referrals from a number of sources. They also made referrals onward to both primary care team members and to secondary care either directly or indirectly, as the following quotation explains, more so than by the other community nurses interviewed.

[Interview 23 : 4 - 12 ]
To receive referrals from doctors, nurses, patients, hospitals, to assess patients’ requirements and continence problems, so my role would be to contact or visit those people to use an assessment form to assess their problems, to establish whether or not they had any infections, to look at whether or not they needed an examination by a doctor and to help them cope with it, be that with the supply of pads or occupational therapy assessment or urology assessment, so that I think would be my role.

Nursing diagnosis of the underlying causes of urinary incontinence did not appear to be an explicit part of their role, although any obvious underlying problem that was identified, that they considered to be treatable, was a reason for the district nurse to refer the patient either to the GP, for onward referral to the urologist or to the continence adviser. However, most activities and skill attributed to or owned by the district nurses were mainly described as the management of problems and the provision of continence aids and pads. The following examples are representative of comments from both the implementation and control groups:

[Interview 22 : 16 - 20 ]
I must admit that the main thing that we seem to do is supply pads. If there have been any problems, we tend to refer them to the specialists. Then follow-up any treatment that they recommend or the urologist recommends.

[Interview 25 : 16 - 19
We sometimes refer them on to the continence advisory service. I must admit that 90% of the time you end up doing out an order form [for continence pads] because they often are quite desperate by the time they come for help.

Every district nurse described details of several aspects of the long-term management of continence problems for elderly people (which are discussed more in Section 6.3.4 Nursing Practice management of UI) and in every case, the use of continence aids and pads was included. Ongoing support is discussed in later sections of the thesis (Section 6.3.4) and refers to helping patients remain motivated in the management of their UI following hospital (secondary) treatment that has not corrected the problem. Ongoing support often involved the use of continence pads.

The role of district nurses could be summarised as the assessment and management of continence problems and ongoing support to patients, allied to practical skills mostly associated with catheter care. Assessment is considered in a further section (6.3.1), but seemed so far to have different interpretations: to provide details for supplying pads or for identifying treatable or transient causes of the problem and/or identifying what medical treatment may be necessary and referring onwards. They were occasionally involved in active treatments such as pelvic floor muscle exercises and they had an extensive role in providing continence products, including incontinence pads and reusable equipment.

In summary, in all groups, in self-report and in commenting upon the role of others, the major role in continence care for elderly people was attributed to district nurses
by all of those interviewed. The least involved were the health visitors and nurse
visitors for the elderly, whose role was not “hands on”. The health visitors had
limited contact with elderly people, their role mainly involved referral to other
members of the primary health care team and assessment for the provision of
continence pads. The nurse visitors for the elderly had a similar approach, and a
more limited notion of assessment. RGNs appeared to have a supporting role to the
district nurses in the assessment, referral and management of elderly patients and in
some teams performed a role where they were responsible for much of the
continence care. District nurses described the most involved role, they described
assessment in more thorough detail, referral for treatments to primary and secondary
settings, active interventions to manage continence problems, the provision of
continence pads and equipment and tertiary care for elderly patients. These aspects of
their role are discussed in section 6.3.

6.2.5 What do the Continence Advisers expect of the community nurses in relation to
the promotion of continence?

The major factor in the nurses’ relationship with the continence advisers was
management of the supply of continence pads. All of the nurses made at least one
comment about the management of the supply and distribution of continence pads
and the majority of the nurses considered that the continence advisers mainly
expected them to budget carefully and aim to reduce costs of pad provision. This was
supported by written guidance on criteria for the ordering and provision of
continence pads and other containment aids, which was the only written advice
available to the nurses on continence care.

[Interview 28 : 97 - 102 ] RGN
I think they expect you to be as resourceful as possible, keeping a minimum amount of products, ......to be quite frugal but to be quite knowledgeable about the whole continence side of things - which is fair enough. And to use them [the continence advisers’ expertise].

Allied to the good management of continence products, for the majority of the nurses, the other perceived expectation of the continence advisers was that the nurses should be knowledgeable and able to deal with the majority of patients with UI themselves; providing competent continence care through a range of activities, including detailed patient assessment, screening, straightforward treatment and management; whilst knowing that patients presenting with problems that they could not deal with could be referred to the continence advisers, the GP or specialists via a GP referral appropriately.

[Interview 10 : 79 - 98 ] district nurse
A lot!  Expectation I think is to do a full assessment as far as we are able to, with the information we have already got, to find out what type of incontinence it is to begin with, and go on from there.  A lot of people have incontinence problems, but they are just not managed properly....I suppose to actually refer them on if we feel that there is a need .....If we had any complex needs or something we can't actually deal with to refer back to them for guidance or for them to actually come out and see the client, maybe do a joint visit or something, so that they can see the need.

[Interview 17 : 137 - 140 ] district nurse
I think they have an expectation that the majority of people can have their needs assessed and fulfilled by a district nurse - the majority but not all, and they would fill the gap.

However, management of continence supplies was also interpreted by two nurses as rationing of continence advice and access to referral and was clearly a source of frustration.

[Interview 6 : 159 - 169 ] district nurse
They are expecting us to make sure that we are not referring people who are not due continence advice.  They will not let us do people who are very incontinent and will not let us refer anyone for continence products who
only use up to two pads a day because they feel that is probably very light incontinence and they could buy pads themselves.

In the second example, the nurse expressed a frustration with local policy. Without containment products she felt there was nothing that she could do at all to help very frail elderly patients.

[Interview 6: 303-307] district nurse
The budget hinders our role. There are people not getting pads that I feel possibly should have because they don’t come under this two per day business. We have 90 odd year olds who don’t get pads because they only use two whereas if they used four they would get them. It is devastating for them. We can’t prescribe below a certain amount or above a certain amount. I don’t think there is anything one can do about it.

There appeared to be some tension arising from having to explain to patients recent changes in eligibility criteria for continence pads that had been introduced in the Trust and finding the process of rationing an uncomfortable experience, resulting in feeling that patients were not being supported adequately.

In summary, the relationship between the nurses and the continence advisers seemed in several ways to be ambivalent. On the one hand, much of the time of both continence advisers and nurses was taken up with the administration of continence supplies to patients. For the nurses, there was frustration in not being able to provide palliative support in the form of a freely available pad service to patients that had become disrupted by rationing and cutbacks in the budget. The nurses responded mostly that they thought the main expectation was for careful budgetary management and the frugal ordering of continence pads for patients. On the other hand, the nurses interpreted expectations of the continence advisers was for the nurses to understand all aspects of continence care that would allow them to assess patients, treat
reversible causes of urinary incontinence, make appropriate referrals and possess a range of management strategies. However, some of the nurses were clearly frustrated by an apparent lack of awareness of alternative strategies to provision of continence supplies in the support of elderly patients.

6.2.6 What do GPs expect of the community nurses’ roles?

District nurses said that they thought GPs mainly expected them to take responsibility for the management of urinary incontinence problems, including assessment and supplying pads. District nurses described the relationship of teamwork they experienced with GPs.

[Interview 10 : 66 - 74 ] district nurse
To remedy the situation, I think they possibly feel there is nothing further for them and we are the best people to actually offer advice, but then if we feel that something else can actually be done for this person, we would refer back and actually state what we want them to do. So it is a two-way thing really.

[Interview 23 : 138 - 147 ] district nurse
I don't think they really know often what to do, so we are the first line of assessment, but it often comes back into their court so that the patient is examined properly or referred, maybe needs some treatment, antibiotics or drugs of some sort.

These comments reflect how nurses interpreted their own role in relation to the expectation of GPs, that district nurses know most how to manage continence care for elderly people in the primary care team. Whilst some GPs’ expectations were also interpreted as providing palliative relief for patients in the form of social or environmental assessment, district nurses described referring patients back to the GP appropriately for medical investigations or referral.
In summary, district nurses were the nurse group most likely to work with GPs in the care of elderly people with continence problems. The district nurses interpreted the expectation from GPs to involve assessment, decision making about further investigation, management and sometimes treatment for elderly patients with continence problems. It appeared that in the main, patients referred to community nurses by GPs were likely to have urinary problems that were complex and deemed to be untreatable by the GP themselves so that their expectation was for palliative care and the provision of continence pads.

6.2.7 Link nurse role

A link nurse role was in place across both the implementation and control groups in the Trust, although not all interviewees were aware of it. The role involved a nurse acting as a representative from nursing teams, who, through regular meetings, obtained current advice from the continence advisers in order to share it with their team. One third of the interviewees (13/29) had heard of the role. These comprised one health visitor, two RGNs and nine district nurses, although mostly the district nurses and RGNs acted as the link nurse. However, both nurse visitors for the elderly reported that they attended regular meetings held by the continence advisers for updates but were unaware of the term link nurse. Although an information-giving
role within most practices and nursing teams, it was reported by two interviewees to include responsibility for all continence assessment within their team. (see RGN role Section 6.2.2). Seven interviewees had attended link nurse sessions and found them useful, for instance:

[Interview 1: 260 - 264] RGN
They can be very informative, the meetings. They sometimes get a link nurse to do a presentation.

However, about \( \frac{1}{2} \) of the interviewees (15/29) had heard of regular meetings for continence advice updates and/or the link nurse role, so that the benefits from additional information from this source on continence care was not widely experienced. One reason for lack of knowledge may have been that it was customary to hold every session at the clinic where the continence advisers were based, which might have limited their accessibility to nurses working in more distant localities.

In summary, there were distinct differences between the roles of each community nurse group, although they were all involved in seeing patients in at least one age group who presented with UI and all were involved in the provision of continence products. Health visitors and nurse visitors for the elderly had no practical “hands-on” role in assessment or management. District nurses and RGNs working with them, were the nurses most involved in caring for elderly people with UI and described the most comprehensive assessments and management strategies. Their role was limited in the provision of treatments, but well established in the practical management of urinary problems, including ongoing care following completed hospital treatments for elderly patients. The nurses interpreted the main expectations of the continence advisers and GPs as the practical management of continence
problems in elderly people and the provision of aids, equipment and continence pads. Other expectations concerned patient assessment, referral to other professionals and the provision of conservative treatments. Pressure upon nurses to follow restrictive criteria in providing continence pads to patients was considered to have a compromising effect upon their supportive relationship with patients. Some nursing teams, especially district nurses and RGNs benefited from additional support through the link nurse role, although the meetings were not widely known about or used to disseminate information through the Trust.

6.3 Nursing Practice

The community nurses described their practice in the care of elderly people with continence problems. The components comprised assessment and associated skills, involvement in diagnosis, active treatment and active management of continence problems. Routes of referral commonly experienced by patients are discussed.

6.3.1 Assessment

Assessment was a key part of many of the nurses’ role and involved using the Trust’s assessment form to collect information about the patient’s urinary problem: their medical, obstetric and surgical history, medication, fluid intake and output, results of a urine test and/or a mid-stream urine test (MSU) and noted social support systems and the home environment. Different levels of assessment are reported along with the use of particular observations of the patients during the assessment. Examples of appropriate assessment skills are examined. Some nurses described using the Trust
assessment form as the basis of an in-depth continence assessment, others showed cursory use of the form as a means to order continence pads and lastly a few nurses used other structured models to guide a thorough assessment as they felt the existing form was an inadequate tool.

The attributes of the continence assessment form (see Appendix D) were that it required a comprehensive overview of the underlying factors and effects involved in UI, but provided little space to record the data. Many of the nurses interviewed were familiar with using the form and could recall its contents, acting as a prompt to include all aspects of assessment.

[Interview 26 : 12 - 26 ] district nurse
I would ask them, looking at the form, their medical history, where the toilets are, what sort of house it is, do they have a carer, what their age is, what sort of incontinence, what the symptoms are, are they expressing, their fluid intake and output and if they are on any medication at all and their mobility and if they have had surgery, and if they have seen a specialist in the past. I think that is about all that is on the form. I follow the form.

This nurse showed a close working knowledge of the content of the form, seeming to indicate that she aimed to complete it fully and appreciated the need for those questions. However, health visitors and NVEs had more limited knowledge of its content. A health visitor explained that she relied upon the form to guide her through an assessment as she was less familiar with the questions and performing assessments:

[Interview 16 : 19 - 20 ] health visitor
I do rely heavily on the form that helps to guide you through what you should be asking.

It was discussed in Section 6.2.1 that continence assessment was not a key part of the role of the health visitor. Another example showed that some health visitors using the
form had a limited approach to patient assessments and regarded the form chiefly as a means to order continence pads, such as:

[Interview 18: 123 -125] health visitor
Assessing the patient, at this point in time with the relevant form in front of me, just a tick box.

Another nurse identified that the format of the assessment documents might better help the process:

[Interview 4 : 134 - 139 ] health visitor
I think actually the incontinence forms need to be more to let you know what type of incontinence somebody has got. You fill out the forms and you are asking all the questions etc, but if you had a flow chart, which said, you know, now move on to this, it would make it easier really. I think you just fill out the form and it doesn't mean a thing to you. If it guided you it would be much better.

This nurse identified the shortcomings of the existing format and content of assessment documents and that guidelines to assist the process of assessment would be helpful. The existing form is not structured to systematically use the information gathered and offers no guidance for identifying underlying causes and making clinical decisions. Two nurses described other strategies to assist them to structure their patient continence assessments. One district nurse reported a structure that she used for her clinical assessments.

[Interview 23 : 27 - 42 ] district nurse
When I did my training we used “the gingerbread man” so I tend to assess people thinking about the whole body and then environment. What they are eating, what they are drinking, are they constipated, can they walk, can they talk, do they understand what their problem is, is the loo too far away, have they got some sort of physical deformity that is causing it, you know tumour sitting there. We would take a specimen of urine and test it for protein and maybe send it off and see if they have an infection. It may be necessary to look more closely at whether or not they were constipated. Take some sort of history about how long they had had it. How often they go to the loo, how long can they hold it, do they know that they are passing water, all that type of thing. Had they been examined by the doctor and maybe about life
She described a holistic overview of a general assessment applied to discover the patient’s continence status. Another described her personal approach:

[Interview 13 : 41 - 57 ] RGN
I tend to focus on the causes and I do very often think well, is there anything we can do other than just pads

It appeared that some nurses were carrying out detailed continence assessments upon their patients and were aware of essential components of the process, whilst others seemed to be performing assessments that were quite limited.

The practice of making objective observations such as urine testing and measurement of the patient’s fluid intake/output were explored as particular examples of practice recommended in the literature (Button et al 1998, AHCPR 1996). The nurses were asked whether they performed a urine test as part of their continence assessment. For some nurses the test was embedded in the process of assessment:

[Interview 2 : 12 - 20 ] district nurse
We have an assessment sheet with all the questions we need to ask. If they have had any investigations, and then we do a urine test to see if there is any protein and if it shows anything up we send a test off to the laboratory to see if there is a urine infection.

[Interview 24 : 104 - 111 ] health visitor
Doing an over 75 check then we do test their urine as part of the assessment and we do actually have Multi-sticks just to see if there is any blood in it, which might indicate that they have a urinary tract infection or other pathology, but other than that no. But having said that, if they did I would probably go back and take a mid-stream urine specimen and then send it off.

These nurses described performing a urine test as a normal part of their assessments if abnormalities are detected then a mid-stream urine sample is taken for microbiological testing. However, this was not a widespread practice among the
nurses and some regarded the test as an optional activity performed only in the presence of obvious symptoms.

[Interview 16: 37 - 41] health visitor
It [a urine test] would be easy to accomplish, though I must admit it is not something I have ever done.

[Interview 26 : 29 – 33] district nurse
If I felt that a urine specimen would be advisable I would probably go back to the patient with a specimen bottle or ask them to deliver it to the surgery.

[Interview 1 : 35 - 47 ] RGN
Not initially [done a urine test] unless they presented signs of being infected. Pain, unwell, going to the toilet a lot, then I would do an MSU as opposed to a dip-stick. I would have sent one off.

One explanation for the lack of use of such a fundamental test of urinary function may have been limited availability of resources. More than half of the nurses interviewed (16/29) did not have access to urine testing equipment, or which needed to be borrowed from the GP surgery to which they were attached.

[Interview 26:37-39] district nurse
No, we would have to do it [urine test] in surgery; we couldn't do it at home because we don't carry the necessary bits of equipment.

[Interview 13 : 71 - 79 ] RGN
No, we don't have it, because I think they are probably too expensive. We do have one tester, which does show up protein, and blood, which possibly we could use, but we prefer to use the GP one, which does include the nitrates and leukocytes.

For some assessments, therefore, a further visit for the purpose of performing a mid-stream urine test might be necessary. Health visitors and nurse visitors for the elderly tended to refer patients to the GP for urine testing.

Other objective measures of assessment such as fluid intake and physical examination were not reportedly performed, but relied on a report from the patient as the following examples show:

[Interview 17: 55 - 67] district nurse
Q: Would that include a physical internal assessment then for you to discover people who have got a prolapse?
No, I wouldn't do that. What would happen is usually the lady would say – Oh, I have a prolapse. Sometimes you can see it, you don't have to do any invasive examination.

[Interview 6: 34 - 43] district nurse
We ask how much on average they would drink during the day, a rough guide [of] how much in the way of pints of clear fluid.

Urine testing was not common practice, less so a physical examination of the patient and the use of a chart to record patients’ fluid intake/output or an internal examination were not mentioned at all. Information from a chart is critical for the identification of underlying causes and type of UI.

Some nurses were able to describe particular assessment skills involving physical examination of patients and communication skills to perform an interview. Two nurses reported some experience, ability and interest in providing a physical examination as part of an assessment.

[Interview 11 : 8 - 10 ] health visitor
Where I have worked before you would have done a physical examination as well, but it hasn't arisen here.

[Interview 23: 316 - 323] district nurse
I can't see why nurses should not be doing internals if the patient doesn't want to, (and they often don't want to), go and see the doctor to have an internal to find out if there is anything that can be done. I think it is a shame that nurses aren't doing that. Being a midwife, it doesn't include me!

The physical examination referred to was a vaginal examination by the nurse to detect the status of pelvic floor muscle strength in women and the possible identification of the presence of uterine prolapse. In men, an internal examination refers to a rectal examination to examine the prostate gland. None of the nurses
identified the latter as a skill they possessed. It was customary to refer to a GP for this examination (see Table 6.2 and later on in Referral, Section 6.3.5: interview 17).

Some nurses identified planned approaches to interviewing patients, which appeared to demonstrate a wide range of skills in communication. Sensitive listening and interviewing ability were described when gathering information.

[Interview 13 : 41 - 57 ] RGN
I also focus, of course, on the patients themselves and the difficulty they have in sort of talking about it, their embarrassment and I try to perhaps alleviate that in a way and make the conversation less stressful for them. I don't think it is easy but I think its important if they are embarrassed to broach the subject carefully, and maybe leave it and come back another time if they don't really want to talk about it.

There was also an awareness of wider issues: how the problem might affect other family members or carers and finding out relevant details from them as shown in these examples:

[Interview 8 : 13 - 16 ] district nurse
How maybe the husband is coping with things, if there is lots of extra washing or odour.

[Interview 14 : 46 - 49 ] health visitor
I would try and get the best history possible and speak to, if there was a carer, speak to the main carer as well.

There was also appreciation of how the patient might be feeling about a urinary problem.

[Interview 10 : 277 - 282 ] district nurse
I will take a long history of their needs and go through a good assessment of what is going wrong and try to get that done initially at that meeting so that the person knows that we are taking them seriously with their need and then it is what are we going to do about it.

[Interview 15 : 20 - 23 ] district nurse
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*I suppose from there, I would move on to how they see their problem affecting their life and what they would be willing to participate in the way of treatment.*

One nurse identified how sometimes an indirect, sensitive approach to assessment might need to be adopted. Her account was one of three including this aspect of care.

[Interview 15 : 73 - 81] district nurse

Yes, most new patients……. regardless of what I am assessing the patient for, I would usually look at the urine just to do a dip stick test anyway, and sometimes we find if we are actually going for one thing, you can actually know the minute you cross the threshold there is actually a minor continence problem there anyway. But often just testing the urine makes them talk about something.

An important theme was the amount of time needed to perform a thorough assessment, as this example represents:

[Interview 4 : 74 - 75] district nurse

They need a lot of our time to actually assess incontinence adequately and to do the care.

The nurses knew that successful interviewing required patience, time, understanding and good listening ability to uncover what the problem was for the patient and the impact upon their lives.

In summary, among the nurses there appeared to be knowledge and experience of social and interpersonal skills, along with the use of a systematic approach to perform a thorough continence assessment. Some nurses described the sometimes-sensitive process of assessment. However, few nurses included physical assessment in the examination of patients, either because they did not feel they could do it or, the few who possessed such skill felt unable to use them, as they considered such skills to be outside their current role. The use of objective tests was not common practice. Urine testing was not performed consistently as part of patient assessment and a fluid intake/output chart, a critical tool, was not mentioned at all. The community nurses were working with patients experiencing urinary problems, apparently in the absence
of clearly defined expectations, standards and the physical resources in the form of a
detailed assessment form or urine testing equipment necessary to perform thorough
continence assessment.

6.3.2 Diagnosis

Nurses did not give accounts of a defined role in identifying causes of UI or
suggesting a diagnosis for UI. Three nurse interviewees provided examples of their
experiences in identifying causes of UI and these cases are presented briefly below to
demonstrate aspects of this nurse activity. The nurses’ main involvement appeared to
rely upon identifying potential causes at assessment and then alerting another health
care professional about the concern.

[Interview 17: 19 – 26] district nurse
As part of the assessment of continence you do to a certain extent
pigeonhole people as to whether it is stress incontinence, whether it is urge
frequency, functional or whatever, and out of that if it is functional it might
be there are mobility problems so you might deal with those. If there are
specific urinary symptoms you might take a specimen, although that is
routinely done first time round to test and possibly send on for a lab test.
What else would we do?

A second district nurse described her experience as involvement in accessing an
urgent diagnostic bladder scan for the patient, although it is not clear what her own
role entailed precisely. Her account of the use of bladder scanning equipment as a
diagnostic tool and its location within the Trust indicates a reasonable working
knowledge of this aspect of diagnosis.
We had someone who had a bladder the size of a 14 week pregnancy.... but because there was a result from the bladder scan, she got an appointment the same day, and I don't think that would have happened if we had not had access to ultrasound at J...

A third nurse, (RGN) described her understanding of potential causes and she went on to describe how she applied them to helping patients.

I do suggest, say for something like stress incontinence, where the muscles are a bit lax, I do suggest pelvic floor exercises. But there are so many different causes and I always try and work out in my head what the causes are.

I have with the district nurse in discussion with her instigated drug treatment for somebody which helped, it wasn't totally successful but we did suggest to the GP that she have Oxybutynin and we made sure that it was increased at the right time and so on and we monitored her and it did have - it wasn't completely successful, but it did help to a large degree.

These excerpts demonstrate how nurses utilised their knowledge of potential causes of incontinence to inform preliminary diagnosis and action required. However diagnosis was generally considered to be the role of the GP or other health professional and the degree of responsibility accepted by nurses was very variable. Importantly, in identifying indicators of potential causes of incontinence during assessment the nurses played an important part in whether the patient went on to receive further investigation and treatment.
6.3.3 Treatment

Seven nurses gave examples of active treatments, both in general and for particular patients; and where their involvement in treatments had been successful. These included identifying and treating a urine infection, treatments for stress incontinence such as advising about pelvic floor muscle exercises; use of oestrogen cream (for atrophic vaginitis); use of a cervical ring pessary (to support a uterine prolapse); and anticholinergic medication to treat an overactive bladder.

[Interview 6: 97-108] district nurse
I have had one old lady, well into her 80s who did the pelvic floor exercises for me. We started some pelvic floor exercises and that seemed to help. I don't think it resolved the problem, but it certainly helped.

The nurse did not explain how the exercises helped, whether as general advice or a planned strategy, but some symptom relief was reported.

[Interview 23: 51-67] district nurse
I suppose in identifying somebody and maybe getting them examined and putting in a ring and finding that resolving the prolapse actually takes away the problem, so we have had a few of those.

More examples of treatments involving pelvic floor muscle exercises were presented than any other treatment.

[Interview 10: 348-352] district nurse
I had another couple of gentlemen who had their prostatectomies done and were dribbling afterwards, then it was just educating them to do pelvic floor exercises.

Another nurse had experience of successfully supporting treatment for stress incontinence, although this had been when she worked somewhere else:
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[Interview 11: 224 - 230] health visitor (describing experience in her previous employment)
Yes, pelvic floor exercises and oestrogen cream, you really have to plug away at it, but it worked, it definitely did.

There were clear examples of individuals having variable confidence in different aspects of continence care, as illustrated by excerpts from interview 23. The nurse had been involved in the use of a treatment for overactive bladder formerly called bladder instability.

[Interview 23: 51 - 67] district nurse
Sometimes using some drugs to try and control bladder instability - that has been successful.

The same nurse appeared confident to offer other treatments to patients. In another example, she explained her involvement in advising men with stress incontinence post-prostatectomy.

[Interview 23: 51 - 67] district nurse
Bladder training for people such as prostatectomies who have come out often post-op with dribbling incontinence and if you encourage them for a period of time to toilet regularly and practice their exercises etc. they can regain[control].

She seemed familiar with the above client groups and certain treatments that she was willing to supervise with them, however, the same nurse expressed uncertainty of an active role for similar treatments with younger women than she usually had contact with.

[Interview 23: 18 - 22] district nurse
I would probably have an expectation that somebody who becomes incontinent when they are younger ought to be able to achieve continence again, but maybe the nurse’s role would not be the prime role in achieving that.
Another possible reason for her lack of confidence may have been a lack of understanding of some aspects of urinary continence problems. She interpreted bladder training as regular toileting, which is not the same technique. However, she was not alone in being unfamiliar with the technique. Bladder training was referred to by no other nurses in the interviews as an example of treatment that they used and four nurses, when asked directly, said that they did not know about it at all. (Table 6.2).

Throughout the interviews, although there were a few references to problems experienced by people with multiple sclerosis, no specific mention of overactive bladder (also called urge incontinence or bladder instability) or mixed incontinence was made, which are the most common causes of urinary incontinence in elderly people (Brocklehurst et al 1999).

6.3.4 Management

Management of UI was the key activity described by the district nurses and RGNs. Management of UI involves both the use of behavioural techniques and the use of aids and appliances (see Chapter 2 Section 2.5). Ways of managing UI were described as helpful to improve the symptoms of UI and reduce the distress from symptoms, with helpful consequences for the quality of patients’ lives. Although earlier descriptions of roles in managing UI focussed upon administering and providing continence pads (see Section 6.2. Nurse role), when asked for examples of care that was successful, many were described that involved active management,
alongside providing continence products, to provide the patients with satisfactory solutions.

Active Management

Altogether, 15/29 interviewees (11 district nurses, 1 health visitor and 3 RGNs) gave one or more examples of improved outcomes for elderly patients that they had cared for, involving active management. Specific excerpts are given to show the variety of methods used.

The nurses identified ways to manage functional problems caused by loss of dexterity and mobility, explained here in one example.

[Interview 10 : 333 - 352 ] district nurse
But even as we were saying earlier on, functional, just actually getting a commode by the side of the bed…. a commode in a convenient place.

Intermittent catheterisation was another example of active management described by two nurses:

[Interview 15: 27 - 45 ] district nurse
Since I have been at the practice, we have two ladies who were using continence pads, both of them use intermittent self-catheterisation now having had extensive tests from the urologists and it was felt that actually the best thing was going to be to continue to use pads, but in fact we found the best thing for them was intermittent self-catheterisation.

The nurse’s role in this example demonstrates ability to seek more appropriate solutions for these patients. Partly, confidence to adapt what can be a challenging procedure (see Chapter 2 section 2.5) to suit the patients, and then to provide the necessary teaching and ongoing support. This last example brings to light another
important aspect of the district nurses’ role in the care of elderly people, that of ongoing support for patients.

Ongoing Support

Patients for whom medical or surgical treatment had had limited success or was awaited were among those patients described as having complex problems.

[Interview 15: 27 - 45] district nurse

We have another lady with multiple sclerosis who was going to have repair surgery for the third time and using exercises in the short term. She has waited for treatment from a specialist in London, and has had a collagen implant. I think that was quite successful but she wouldn't have stayed sane if we hadn't helped her with the exercises and things like that in the waiting period, and in fact some of our older clients who do use incontinence pads, we have managed to get them using less of these supplies, and while that doesn't completely cure their continence problems, it does show that we have been able to improve their continence problems, and who knows, if we keep at it, we might get rid of them altogether!

Supportive long-term relationships between the nurse and patient were seen in other examples to have a positive therapeutic effect. Another account for a patient who was catheterised reinforces the importance of emotional support and sensitive care as a part of ongoing care and management for the patient. The decision to choose long-term catheterisation to manage urinary incontinence should not be made lightly, as it is invasive and rarely free of complications (See Chapter 2 Section 2.5). However, if well managed, it can provide independence and comfort for some patients (Getliffe 2002).

[Interview 30: 288 - 311] district nurse
The gynae people [gynaecologist] said that she needed a repair operation, but they couldn't do it because of her age [90] and it was going to be such a big operation, so I suggested that we catheterised her, and to start with she said no, no, no. Then she phoned me and said I think I need to talk to you about it. So I went in and showed her the catheter and told her what we did.
She thought about it and phoned me the next day, and said she would try it, ..........she now leads an active social life and it is wonderful, whereas with pads and things, she was in absolute misery, she hated it. We haven't actually solved her incontinence problem, but we are coping with it and she carries on a normal life.

Independence and improved quality of life are demonstrated by the above nursing intervention, which importantly seemed to hinge upon how the nurse informed and supported the patient through the process of decision-making.

The district nurses were quite aware of the value of their role among elderly people in continence care:

[Interview 17 : 42 - 53] district nurse
We have reduced incontinence problems but not solved them.

[Interview 9: 158 - 166] district nurse
We help people manage their day-to-day problems; I think we do quite a bit to make life easier.

Their activity in ongoing support appeared to be an important part of the role of district nurses. However, it had taken deliberate questioning in the interviews to discover this aspect of their practice.

6.3.5 Referral routes for patients with continence problems

Access points that interviewees were aware of for patients and carers to receive continence care are mapped in Figure 6.1. Referral routes were flexible so that patients could be referred or refer themselves to any member of the primary care team, who would respond. Direct access to the continence advisers was not available to the public, but came through a member of the primary care team, who retained responsibility for the patient’s care, with advice, home visits or joint visits made by the continence advisers, as no clinic services were
available. The primary care team member might make an assessment and/or refer onward within the primary care team or to the continence advisers (first-line referral), or to hospital-based nursing and medical specialists, paramedical care, or social services (secondary referral see Figure 6.2). One potential route that was not identified by interviewees was one involving physiotherapists. Physiotherapists were based at community hospital clinics and not attached to GP practices/primary health care teams, which may explain their lack of inclusion in descriptions. All the directions of referral described by the interviewees are included in the diagram.

Figure 6.1: First-line referral routes described by community nurses
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First-line Referral

District nurses were the main professional group to whom referral within the primary care team took place, with the GP and continence adviser mentioned equally. District nurses and nurse visitors for the elderly received and responded to direct referrals from elderly patients. Sometimes they were routed to them through the GP receptionist or after seeing a GP. Health visitors and nurse visitors for the elderly reported that new referrals might originate from community hospital discharges, social service departments or at GP practices where an elderly person did not already see the district nurse. RGNs might handle referrals that were made to the district nurses. However, district nurses had most of the early contact with patients or receive most referrals within the primary care team:

[Interview 8: 12-14] district nurse  
We are usually the first point of contact, the patient will see us for various reasons, or you might pick up problems on a visit for some other reason.

[Interview 22: 108 - 115] district nurse  
They would have seen the GP first and the GP would help assess the patient and then we would assess the patient. No, that is not quite true, because people can refer themselves to us as well. I suppose it varies, it depends where the referral comes from, so in some cases the GP would. I think the district nurse is most appropriate.

Health visitors were also involved, but in a more limited way:

[Interview 16: 4 - 9] health visitor  
Well, we have a policy here at the surgery whereby if the district nurse is not involved then the health visitor does get involved.

However, the process was also ad hoc:

[Interview 14: 22 - 30] health visitor  
I think sometimes it is the receptionist or a member of staff at the surgery who has perhaps thought it would be a good idea if we popped round. It
has been sort of—“could you just drop in and see”—because they don’t see the district nurse or because there are no other workers going in there. So it has been a very loosely defined thing I would say.

[Interview 25: 7 - 9] district nurse
I am not sure how it is divided up, apart from whom the referral comes to first, whether it is the district nursing service or the health visitors.

Whilst many of the accounts of ways of handling referrals from patients seemed to indicate a clear rationale, established lines of responsibility and co-operative teamwork across the disciplines at primary care level; the multiple routes possible may merely reflect ad hoc differences between many primary care teams, or alternatively, may reflect a generally uncoordinated and uninformed approach. One multi-disciplinary team, led by the district nurses, had developed their own local protocol for managing continence referrals and who would provide subsequent care, in order to achieve better co-ordination.

[Interview 23 : 407 - 419 ] district nurse
Yes, we have a meeting on a Thursday with doctors, nurses, health visitors etc. and my nursing colleague J drew up a protocol for the practice should a patient present with a continence problem; explaining what would happen from their point of view if that patient was referred to us, so that everybody knows about assessment and should we feel that it is not really our department that they will come back to the doctor or they will be referred on to a continence advisor, so that people will be aware of our expectations of them as well as their expectations of us for an incontinent patient. The health visitors did it for enuresis as well.

Most referrals between members of the primary health care team appeared to be between the district nurse and the GP. Common reasons were need for specialist referral, medication or examination (also see Section 6.2.6: GP expectations):

[Interview 25: 104 - 112] district nurse
It would be patients that may be described as having other symptoms, for instance if they have a uterine prolapse or something I would refer them back obviously to the GP for management. If they are constipated you could refer back because that can actually affect their urinary continence as
well. If I tested the urine and there was something abnormal I would refer them back. Generally it seems to be to the GP though there have been times when I have referred on to the continence advisory service for a more in-depth assessment.

The reasons given for referral were for clearly identified medical intervention or further assessment, but might still involve ongoing care by the referring nurses (see management Section 6.3.4). An alternative referral direction was to the continence advisers, however any referral made to the continence advisers remained the responsibility of the referee.

[ [Interview 13: 134 - 138] RGN
Sometimes the staff from the continence advisory service go out and visit the patients. I have referred to them in the past, and I will also liaise with them about a particular patient if I have a problem.

Secondary Referral

Secondary referrals might follow on from initial assessment by a member of the primary healthcare team (see Figure 6.2). Medical referral occurred through the GP making a referral or it being made with their knowledge.

[Interview 26 : 83 - 88 ] district nurse
I would go back to the GP perhaps if I felt they needed to have a surgical or medical intervention, but those would be the ones. We have on occasion spoken with the urology nurse at F... as well.
Figure 6.2: Secondary Referral Routes described by the community nurses.

Alternatively, secondary referral might occur on the initiative of the nurses themselves:

[Interview 1 : 212 - 219 ] RGN
Probably adapting, I would probably get a physio or occupational therapy if it is adapting the home, but if it is just a commode, then I would order it, but if was getting something that goes over the toilet, I would maybe speak to physio or OT...... Probably my first port of call would be continence advice.

[Interview 9 : 21 - 24 ] district nurse
We have an in-house physiotherapist here, we are very fortunate, it is a charity, we have one on the premises so we can talk freely with them, so sometimes when it is perhaps enhancing the importance of exercise, we can use them for that.
Physiotherapy and occupational therapy as destinations for referral was mentioned twice in the interviews, so was not apparently a common practice, confirmed by the following description:

[Interview 13: 108 - 120] RGN
We actually don't tend to refer anybody to anybody else, apart from the GP. However, the physiotherapist comes to mind who might be helpful with things like pelvic floor exercises. Oh yes, we have referred people to the OT to help with handlebars to help people get up from the toilet.

District nurses reported that they continued providing care throughout or after secondary advice or treatment.

The existing referral system seemed to offer a flexible approach, in that various members of the primary healthcare team received referrals about patients’ problems, but was not co-ordinated or systematic in most teams represented by the interviewees. To co-ordinate procedure, one primary care team had prepared its own protocol (implementation group). In general, it appeared that much of the continence care for elderly people took place at primary care team level. Advice was requested from the continence advisers, who visited the patients at home, but other specialist help from physiotherapists or occupational therapists were not often requested.

6.4. Education and Training

A variety of views were expressed about the quality and amount of education and training that the community nurses had received. This information is presented in three sections: existing training, deficits in knowledge and training needs.
6.4.1 Existing training

The nurses had learned about continence care in several ways, mostly informal. None of those interviewed had undergone the ENB 978 Promotion of Continence course.

[Interview 19: 232-234] district nurse
I think it is when you become a district nurse you then learn to deal with it.

One nurse had attended a structured course described as comprehensive:

[Interview 13 : 170 - 179 ] RGN
No it wasn't the ENB course, it was run by the ....Trust, I think and it was run by a continence nurse. I would be going back about three years now, it was a couple of hours in the afternoon for about three or four different days and it was excellent because they went into all aspect of incontinence, the causes - they went into catheter care, all the people that should be involved in continence, they talked about urodynamic clinics and it was very much more interesting than anything I have been to here. It was very, very good.

About 2/3rds of the nurses (20/29) described that information about continence care came from in-service sessions provided by the continence advisers. Existing training available within the Trust generally comprised short updating sessions, often about continence products and link nurses sessions. However, attendance was not always possible or a high priority for the nurses.

[Interview 9 : 134 - 136 ] district nurse
Being a member of the continence link group, I find that quite educational.

[Interview 8: 195 - 198] district nurse
Well, the reps come round and sometimes provide us with lunch! [The continence advisers by name] put on training sessions, updates, you know, all those sorts of things and we try and attend when we can. This last year they have been altering all the pad sizes and the colours haven't they, all those sorts of things and they have had quite a few training sessions.

[Interview 15 : 307 - 311 ] district nurse
You can't always take it up. We do try to get one of us to do each of them so that we can feed back to each other, although it is never quite as good as going yourself; but it is the best we can do sometimes. Oh I am always interested in it, if I can fit it in, yes, because it is such a big part of our work.
These training sessions were of practical value, but appealed to the district nurses more than the health visitors, partly because the topics were practical.

[Interview 1 : 249 - 257] RGN (experience as link nurse)
Sometimes they have reps [sales representatives] come in and they have one lady coming in to talk about bladder washouts which was lovely because it clarified what they were and what they were used for, which is good.

Views were expressed that the training they had received was adequate for their role, but that this was a general role that was rather dependent upon other professionals for support.

[Interview 17: 366 - 372] district nurse
I think I have worked for the Trust for about two years and in that time I have probably been on two full study days and several updates. I think probably, for what I am expected to do, because I know that I can always refer back, if that wasn't there I would say no because I don't know about specifics, but because I have got back-up I don't need to know about the specifics, I can get that information from other people.

The community nurses had not in general received a comprehensive training for a role in continence care, especially the district nurses, for whom it was a major part of their work. However, for a limited role, with back up from the continence advisers, this was generally accepted as adequate. In comparison with other nursing responsibilities, attending informal in-service continence training was not a high priority for them.

6.4.2 Deficits in knowledge

The need for improvements in the level of knowledge and skill in assessment were expressed by about a third of the interviewees (10/29). The strength of views varied,
but generally, there was a sense of discomfort with a role in which there was the need to look for advice elsewhere because they felt ill-equipped to help the patient themselves. Representatives from all nurse roles, except the nurse visitors for the elderly, expressed appreciation for training, especially owing to the sensitive nature of continence problems for patients and the low priority given generally to the topic.

[Interview 24: 299-308] health visitor
Yes, I think it is a major need [education] to be quite honest and with our special needs children I feel very very inadequate because I don't have enough basic training in incontinence basically and therefore it is very much like fumbling really and a lot of our time is used trying to gather bits of information from various people, I often go to the district nurses because they deal with it more than we do, for advice, maybe go to the GP because you are not quite sure, or go to the continence advisor. So yes, I think it is a big need.

[Interview 4 : 79 - 81 ] district nurse
Time, the training, the different types of continence, I just don't feel confident enough to assess it properly, to be honest.

[Interview 13: 267-272] RGN
No I don't [feel able to care for elderly people the way I would want to] because I am restrained mainly to giving out pads and assessing and containing the problem. I am not very knowledgeable about other areas of treatment and I feel there must be other areas of treatment that may not be widely used and that we don't seem to know about.

There was a sense of frustration expressed in these nurses’ comments about the level of knowledge that they possess and their understanding of “a hidden subject”.

However, two thirds of the nurses were satisfied with the level of training available for them in continence care and one was frank in expressing her lack of enthusiasm for the subject.

[Interview 9:135-138] district nurse
I think so [have enough training]. I did the Diploma of Nursing and we did a lot included in that, but also being a member of the continence link group, I find that quite educational.
We need to be reminded [but] it is not one of my favourite subjects, so it is something I tend to veer away from and not go [to training]. I do obviously acknowledge that it does form a great part of our work, so we have got to sort of be interested in it.

There was awareness that a fuller role and a higher level of skill might improve care and be a logical development for some nurses, supported by the educational role of continence advisers.

Certainly, if I had more involvement with the elderly, and I think it would be nice if we did, I think we should have regular, perhaps annual updates on what is available and what should be done and some training should be put on for an assessor because we can't be - we keep needing reminders or updates on things, you have such a diverse thing there is no need for everybody to be referred to a continence advisor or a specialist for everything so long as the people in the field who work in the primary healthcare team know what they are doing. I think the advice should come from specialists in the field.

I have never actually done any PV [vaginal examination] or digital examinations [rectal examination for men] because it is not something that we do .................... it is so sensitive an area. It is quite strange that people will let you do a rectal examination when they are constipated and yet for this......that is something a bit more. I suppose we could do that if we were trained up to do it. It is almost the doctors' thing you know. .................... I believe that if we were trained to do it, we would have better assessments and maybe we would be referring more people for urodynamics studies all the other things. ..................... I am aware of it. I feel a bit guilty about it because you know that maybe you could be doing things better.

The nurses identified the variety of skills that comprise good continence care: theoretical knowledge and practical skill. Moreover, they identified that the skills involved are more than physical competencies. For instance, how does the nurse move from novice to expert and learn what to do in challenging situations to meet the
complex needs of patients who require psychological support to face their problem and risk dealing with it?

[Interview 25 : 196 - 211 ] district nurse  
With wound care and palliative care and things like that which are bread and butter and everyday stuff, I think I am up to date with that and much more than keeping up to date with continence, ... maybe I am not giving 100% in terms of continence advice. So I am sure there should be further training. I think I need training [to a ] higher [level], locally sometimes. And to talk about basic things like what you do when you know motivation is so low that you feel OK just giving incontinence pads and pants but at the end of the day, for some patients that is the only thing, managing the incontinence like that, than having a high goal promoting continence and initiating quite rigorous pelvic floor exercises.

6.4.3 Training needs

Nurses identified the kinds of training and topics that would fulfil their learning needs. Practical sessions accompanying the continence advisers as a new member of staff was one suggestion. Others included raising the profile and discussion of continence care through an interest group. Teaching about the causes and treatments of UI was identified; along with the adoption of clinical guidelines that was suggested by two district nurses. Dissemination of personal copies of research information and current advice was another suggestion, although the nurse’s attitude to finding out new information was rather passive and the implication of the cost of this did not appear to be considered.

[Interview 25 : 328 - 337 ] district nurse  
I think actually a list of research, new products, things like that individually coming around, rather than it arriving in the office, reading and ticking, we don't really read it properly, so something like that. New product information, maybe more regular updates, but not ones that take too long because we are already stretched and something locally based. Updates and product information, exercises and new thoughts from research.
Three nurses wanted more information about the continence products, as most of their continence care was concerned with the assessment and provision of absorbent pads.

[Interview 2 : 207 - 214 ] district nurse
I think that if we had more time and maybe more updates on the products we would know more about how much each pad holds and how many could be used. You often go in and see them with a small pad and you don't actually have time to sit and read how much they hold and how many should be worn a day, so I think probably we should think a bit more about what we are ordering.

A number of ways to improve the nurses’ performance of their roles were described: Regular, local, short sessions with a theoretical content about the causes and up to date treatments of incontinence, along with skill-building in how to assess patients and receive mutual benefit from colleagues, perhaps led by the continence advisers.

Few nurses who were interviewed identified that they had received thorough training in continence care. About one third of the nurses identified a substantial need for education and training in many aspects of continence care, whilst the other nurses seemed fairly satisfied that their level of ability supported their existing role. Among those who identified training needs, formal education was valued, and was considered accessible if wanted, however, most identified in-house training as a convenient way to support their existing role and to improve associated skills and knowledge to benefit patients. Guidelines for assessment and diagnosis were identified as useful, identifying how to assess and knowing when and to whom to refer. Training provided locally would fit in with work responsibilities as would widely distributed information for personal use.
6.5. Caring for elderly people with continence problems

Negative attitudes were expressed towards elderly patients with urinary continence problems that may have arisen as a result of the nurses’ clinical experience and a lack of thorough knowledge about urinary continence problems. Negative attitudes were also attributed to elderly patients themselves and other health care professionals, which in some cases seem to have translated into much lower expectations and consequently a limited approach towards all elderly people in providing their continence care.

Previous sections have already identified some problems that existed for the nurses, including a general lack of knowledge about some causes and possible treatments in continence care (previous section). Another was that the nurses were often involved with patients who had multiple health problems, were frail, or both, which caused the treatment or the management of their continence care to be quite challenging (Section 6.3.4). These circumstances may have contributed to reinforce nurses holding negative attitudes or their expressed attitudes may reflect a view about old age held by society in general.

6.5.1 Knowledge of ageing

Some of the nurses had identified for themselves that they lacked knowledge of many causes and current treatments for incontinence. There also appeared to be a lack of knowledge of specific effects of age upon the body and that urinary incontinence is not an inevitable effect of ageing (Brocklehurst et al 1999). Some
nurses attributed continence problems for elderly people to unspecific causes or “the ageing process” and stated or inferred that they considered these to be inevitable and irreversible and unresponsive to treatment.

[Interview 14 : 63 - 66] health visitor
................. It's probably something you may well expect with ageing.

[Interview 15 : 142 - 144] district nurse
The reality often is that it is just muscular weakness through old age.

[Interview 9 : 6 - 7] district nurse
What I find is having been doing the job for some time, is that not a great deal changes with the elderly once they have continence problems, short of having maybe a catheter inserted, the problem doesn't vary a great deal in many instances, in some cases it does.

[Interview 10 : 23 - 30] district nurse
After doing your assessment, then you will find out whether it is the old cliché, the ageing process, or is it something different that they can actually rectify which allows a person to lead a normal life without having to wear pads or combis or catheters or something.

[Interview 29 : 107 - 109] nurse visitor for the elderly
Realistically - ... with the elderly, often the ones I come across, it is really too late for that.

[Interview 30: 66 - 75] district nurse
My view is that in elderly people, very elderly people certainly, it is wear and tear to a great extent, their problems of incontinence, while with a younger person it is going to be more mechanical and far more likely to be able to do something about it. With old people, particularly when we are talking in terms of the over 80s, they are just worn out, their muscles are worn out and however many pelvic floor exercises they do it is not going to make the slightest bit of difference, so don't lets waste our time on it. I'm being very honest here.

In the last example, the nurse did not mention other potential causes, such as the effect of patients’ medication upon symptoms (See Appendix A) and other strategies for managing UI. Lack of knowledge appeared to limit the possibilities in the minds of the assessing nurse of possible causes, and therefore for them to strive to promote treatment. A further example shows how this was rationalised:
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[Interview 1: 94 - 102] RGN

If I can’t get to the bottom of why they are having the continence problem for their age and looking at the quality of life as well, what are they doing, are they out and about. If it is an old lady and all she wants is pads, that's fair enough.

The justification for no explanation or action is described as a response to what the patient actually wants and involved making value judgements about the patient’s quality of life based on whether they are housebound or not, not whether their self-esteem is affected. One nurse’s stereotypical views of elderly people seemed to defeat efforts at treatment, if they were made:

[Interview 23: 51 - 67] district nurse

I can’t say I have had a lot of success with pelvic floor exercises in the elderly, most probably because they don't do them because they accept that they are incontinent and they don't feel they can achieve anything and they just accept it and get irritated when you ask if they are trying to do anything else.

[Interview 23: 173 - 181] district nurse

No matter how hard you try, I have had patients coming back to the doctor to say - can you tell the nurse that I can't do those exercises, they hurt me - because they find it difficult to see the value or maybe they don't value themselves enough to feel they can achieve what one might expect of them.

Here the cause of failed treatment seems to be attributed to the patient’s lack of effort and motivation rather than that unachievable goals might have been set, or that maybe it was the wrong intervention. The importance of systematic assessment would go some way to address the difficulties expressed in the examples here; a structured approach to identifying causes and therefore treatments would be more effective.

A lack of interest in elderly people’s care was also expressed.

[Interview 23: 167 - 173] district nurse
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The majority of our case load are over 65, certainly I think if the majority were younger and had more complex needs, such as people with disabilities, deformities following specialist surgery, if they were the majority then I think that we would need a lot more [education] input, but because the elderly are the majority and it seems very difficult to achieve an awful lot with that age group no matter how hard you try [we do not need more education].

A poor understanding of the care of elderly people with continence problems seemed to lead, in the above example to a “vicious cycle” of not wanting to know, even when it concerned a group of people commonly cared for by that professional group. The experience of the district nurses was mostly with very elderly people and certainly over 75 years of age. It was not clear in the nurses’ accounts whether they saw people under 75 years with UI as the sole health problem, as most examples they gave either described patients with physical disabilities or people in their 80s or 90s. In most community trusts, district nurses would usually be asked to visit housebound people, thus their patients were likely to have a disability or other health problems in addition to UI. Elderly people between 65-75 years and those between 75-100 years can present with different problems, indicating a need for individual assessment and treatment.

6.5.2 Health problems

Nurses commonly deal with elderly patients who have complex or long standing health problems. Such health problems were identified as obstacles that prevented the patients from participating fully in active treatment for their urinary symptoms, or prevented the underlying cause from being readily identified. Moreover, patients’ mental health and attitudes might prevent them from co-operating with treatment,
although it was seen in the previous section that nurses too had attitude problems. It is understandable therefore that these experiences would to some extent colour the nurses’ views about the effectiveness of interventions for people with urinary incontinence.

[Interview 5 : 25 - 26 ] district nurse
Lots of the patients we get are very elderly and immobile, or obese and things like that and sometimes it is quite difficult to be able to cope with the problem.

[Interview 26 : 58 - 62 ] district nurse
I think most people seem to be the chronically sick, you can mention pelvic floor exercises and things like that, I doubt whether you would get what you hope for.

[Interview 25 : 147 - 157 ] district nurse
Often with the more elderly clients motivation and management of the problem for some time is quite low. When talking about pelvic floor exercises and keeping a record, you know that you go back next - it is terrible really - you go back and they haven't done it, they barely manage to survive in their homes and change their pads, without doing the extra.

One nurse demonstrated awareness that there are probably more factors to consider for people who are getting older:

[Interview 14 : 346 - 353 ] health visitor
We know there is going to be an awful lot else there in every single household and a lot of visits you make to older people tend to bring up a lot of other problems, so you couldn't just focus on the continence itself.

However, the main obstacles to the successful outcome for patients were not necessarily connected with age, but with other factors. A few nurses demonstrated awareness of this. One nurse made an important point: that successful outcomes are more likely if early treatment is instigated, which means identifying problems promptly, a factor not necessarily associated with the patient’s age.

[Interview 6 : 25 - 27 ] district nurse
Treatment is better before it got to a chronic stage. Sometimes with the elderly clients it is not appropriate to do pelvic floor exercises because either they can't do it or they are not mentally aware enough to do it.
A few nurses were aware of other important obstacles to successful outcomes for any treatment or management regime. One was the complexity of someone’s health problems:

[Interview 5: 9 - 10] district nurse
It depends very much on the actual patient really,...not their chronological age, some folk are much fitter and generally healthier than others, so I think you have to take the person into view very much more than just the age when related to their health.

Another obstacle for patients was the level of assistance available for people to benefit from care:

[Interview 9: 144-149] district nurse
A lot of people have fallen into the moderate needs range and incontinence might be one of their problems and they are struggling. It is the grey line between health and social, so with a little more help on the personal side a lot of problems could be avoided, you know, like infections.

This issue for patients with health and social problems concerned the priorities of allocating of social care services, which might mean that a patient received less practical help than necessary to provide assistance or promptings for patients in toileting regimes for instance. Sufficient help would then operate to prevent further problems developing, such as risk of falls, immobility, infection and depression. General health status, the ability to co-operate with treatment and the length of time that a patient has experienced continence problems were more important factors in the successful outcome of treatment than the chronological age of a patient, which were identified by a few of the nurses.
6.5.3 Different approaches between age groups

The nurses were asked whether their role differed between people over and under 65 years of age. Their responses indicated that they anticipated that there would be more successful outcomes with younger people, which might affect their approach, although for all nurse group except health visitors, this was a hypothetical experience. There were also suggestions that access to diagnostic tests and treatment might vary. Nurses’ attitudes towards and expectations of younger patients appeared in some cases to be different, as described by three nurses:

[Interview 25: 147 - 157] district nurse
I have to admit that motivation is higher and you can also identify more sympathy with younger people whether it is because the goal is much more in reach.

[Interview 6 : 23 - 29 ] district nurse
I think perhaps with a younger client we would try to do something physically. Maybe we would try to push the exercises more or try and rectify the situation before it got to a chronic stage. Sometimes with the elderly clients, they are not mentally aware enough to do it. Quite a lot of the younger ones have got a physical cause for it, so we would be trying to find a physical cause and try to do something about that first.

[Interview 13 : 23 - 28 ] RGN
I think I may well be more concerned about a younger patient with incontinence. Why this should be I don't know, but I think I would be more inclined to perhaps go and discuss it with the GP or find some other way of dealing with it other than with incontinence pads. On reflection I think that perhaps we should do more for the elderly in this respect.

These nurses described a range of views: more sympathy and more sensitive approach, including a more dynamic assessment, seeking a cause and active treatments applied to young patients, but in the last example the nurse commented that it was probably an unfair approach, as though reflecting upon practice does not usually occur. They expected that younger patients would not have other illnesses
and disabilities, would co-operate better with treatments and be motivated to achieve continence.

Others expressed views that elderly people may experience restricted access to diagnostic tests and active treatments on account of discriminatory attitudes of other health care professionals.

[Interview 10 : 15 - 21 ] district nurse
The younger they are the more opportunities they have for surgery or different treatment as opposed to the elderly.

[Interview 4 : 76 - 79 ] district nurse
I said I don't treat age differently, but people might say at 70 something, we can't get him up to the hospital, it is difficult to do the tests and things like that.

[Interview 15: 57-64] district nurse
We actually have quite a few younger clients on our caseload because we have the care of a sheltered home and workshop for disabled ladies and trying to persuade the urologist that they don't need to be wrapped up in continence pads all day long has been quite a task, so if we can't do it for the younger ones, we are going to struggle for the older ones aren't we still more.

The content of these comments suggests that at some time the nurses may have experienced caring for such patients, but equally, they may simply reflect the nurses’ own views. However, the above example expressed the capability of a sympathetic attitude to existing patients in the face of obstacles from other professionals.

In summary, for several reasons the nurses interviewed had low expectations of elderly people being able to benefit from continence care, especially assessment and active treatments. Physical and mental health problems certainly can contribute to urinary incontinence, or complicate diagnosis and treatment. However, assumptions about patients’ abilities to respond to treatment seemed to be based upon their age rather than health status. The basis for such assumptions were a poor understanding
of the actual effects of ageing upon the human body and the urinary system in particular and value judgements on the quality of patients' lives. Less strenuous efforts in assessment, diagnostic tests and referral for treatment were acknowledged and fewer opportunities for medical treatment for elderly people were reported, thus illustrating a self-fulfilling prophecy of failure and a cycle of discrimination.

6.6 Summary of interview findings

District nurses appeared to have the key role in assessment, management, and referral of elderly patients for continence care in the community and following secondary referral. This role was shared by RGNs and undertaken far less and in a more limited way by health visitors and nurse visitors for the elderly. The district nurses regarded continence care as their responsibility and they were considered by all of the nurses interviewed to be the most appropriate health care professional to perform nearly all of the activities that comprise continence care for elderly people. They appeared to have experience in many of the practical skills needed to manage long-term continence problems and all other nurse groups referred to them for this reason. New information about continence aids and equipment was available through poorly attended link nurse meetings organised by the continence advisers.

Continence advisers supervised the management of the supply of continence products and supported the assessment and management of patients, expecting the nurse to perform a dynamic role in patient care. The nurses’ perception was that GPs tended to refer patients to district nurses to provide palliative care and this was generally the expectation of their own role. They found their role in continence care,
done properly, to be time-consuming, but it was given a lower priority than other key responsibilities.

Some district nurses identified systematic assessment of patients. Whilst the features of a continence assessment form were fairly comprehensive, they were not adhered to consistently and objective measures of urinary function were not standard practice, lacking suitable equipment. Some nurses considered that they were assessing patients only for the supply of continence products. Diagnosis and active treatments were less likely to be a part of the nurse role in continence care, for which they would refer to specialists. The nurses appeared to operate within a system structured primarily towards palliative management of continence problems, through the use of continence products, rather than the promotion of continence; the focus upon active treatments and prevention was less prominent. However, some experiences of the successful treatment of patients were described and the active management described by district nurses and RGNs also included proactive interventions along with valuable ongoing (long-term) support to patients. Referral routes for patients appeared to be quite complex. The district nurses sometimes performed a coordinating role and ongoing role throughout the process.

Some of the nurses were aware of their inadequate knowledge about how to improve outcomes for patients; very few seemed aware of the most common causes affecting elderly people and their treatment. Most nurses had not received a comprehensive training in continence care, they relied upon in-house sessions run by the continence advisers, but these were not a priority in their working lives.
Assumptions about the inability of elderly patients to be successfully treated for continence problems were expressed. These tended to rely upon the mistaken notion that “the ageing process” inevitably causes incontinence. Two factors may have influenced such views: a lack of knowledge of the process of ageing and that many existing elderly patients had additional health problems that might lead to only partial success from any treatments. The client group most commonly seen by district nurses had chronic health problems and it was less likely that elderly people with a continence problem who were otherwise fit would see a district nurse first. A few nurses were aware that successful outcomes in care depended upon the overall health status of the patient and the length of time that the continence symptoms had been experienced. Nevertheless, dynamic approaches to continence care for elderly people was not generally considered.

6.7 Focus Group Findings

The focus groups were held with nurses within the implementation group (Localities 1&2) only. There was a potential pool of 140 nurses who could have volunteered to participate. The focus groups overlapped Phases One and Two of the study as discussed in Chapter 3 Section 3.4, Table 3.1 and in Section 4.8. The composition of the groups is shown in Table 6.3. More district nurses than nurses with other roles attended, but each nurse group was represented.
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Qualitative Findings -

Focus Group number (F) District nurses RGNs NVE Health Visitors Total

| Locality 1 | F1A  | 2 | 2 | 1 | 1 | 6 |
| Locality 1 | F1B  | 3 | 2 | 1 | 1 | 7 |
| Locality 1 | F1C  | 2 | 1 | 0 | 0 | 3 |
| Locality 2 | F2A  | 3 | 1 | 1 | 1 | 5 |
| Locality 2 | F2B  | 2 | 0 | 2 | 2 | 4 |
| Locality 2 | F2C  | 2 | 2 | 0 | 0 | 4 |

Table 6.3 Numbers of nurses (in the implementation group) who attended focus groups

The following headings were used to examine the subjects discussed in the focus groups. Policy and procedure development are discussed here and the other two topic headings are discussed within the Phase Two findings.

- **Policy and procedure development**: Experience of policy and procedure development and which aspects of their current continence care practice needed examination.

- **Trial continence assessment documents** Examination and discussion of a pilot of continence assessment documents. Feed back their own and colleagues’ comments upon the use of the continence assessment documents.

- **Experience of continence assessment**. Discussion of the experience of continence assessment using the proposed documents and any issues arising from it.
6.71 Continence Care Policy Development

Policy

Four community nurses (one district nurse and one health visitor in each locality) had the experience of working in general policy-making or standard setting groups within the Trust, demonstrating that frontline staff had occasionally become involved in policy-making activity within the Trust. Recent policy review of the health visiting service had however been carried out only at managerial level and had resulted in the rationalisation of certain visiting responsibilities:

FIA “Health visitor hours had been reduced and only operating at the minimum standard at present across the trust with no home visits to mothers”.

One consequence of these restrictions was likely to be that any potential role for health visitors in continence care for adults would be less possible.

However, health visitors within the Trust were using multidisciplinary clinical guidelines for children with enuresis. Two health visitors reported the work of enuresis clinics for children, which had been running for six years, with protocols established in the past year across all localities of the Trust. These involved a multi-professional assessment begun at home by the health visitor or school nurse, a compulsory GP examination and referral to the enuresis clinic, once first-line approaches had been tried. Multi-disciplinary case discussions chaired by the managing doctor had been adopted in one locality.
Continence clinics

Continence clinics were available for patients in the Trust, but provision was patchy. Physiotherapy departments within three community hospital (in the control localities only) each organised a continence clinic for adults, run by one physiotherapist with special interest. However, these clinics were not accessible to patients outside those localities. The continence advisers had tried to set up their own clinic within one (implementation) locality a year before, with limited success. Owing to problems with transport for patients and lack of available support from an urologist, the clinic was no longer running.

The neighbouring Trust had two established continence clinics, which were accessible to cross-boundary GP practices. It was standard practice for all patients within the catchment area to be referred to the clinic for assessment and treatment (F1A). Information among the community nurses about local provision was not well known:

*F1A “Is there a continence clinic?”*

However, the value of clinics was appreciated as beneficial:

*F1A: “The functions of clinics are to support diagnosis and treatments and be part of wider education”.*
6.7.2 Continence Assessment

Two district nurses had personal experience of using specific assessment tools (the Kenwright score and the Colley model) to perform structured continence assessments that were not currently utilised within the Trust. In another Trust, one of the district nurses had experienced the use and peer audit of a continence assessment tool. Within the Trust, it was described that until 1990 there had been a detailed continence assessment document for adults that was discontinued and replaced by a form for ordering continence supplies, as explained here:

F1A: “We used to have assessment forms prior to the continence advisory team, but deemed to be too complicated”.

Opinions about the existing assessment documentation were critical of their design and useability.

F1A: “... nowhere to document anything”

F2B: “Didn’t have a form to use for incontinence use, used one from a course.”

F1A: “A proper package of care, treatments and assessment protocol would be better than what we have got already.”.

Such views expressed that by comparison with other experiences, the existing system within the Trust was not robust. Access to urine testing equipment for instance, varied substantially across the Trust. At one extreme, four nurses had not heard of recent urine testing developments (Multistix manufactured by Bayer: Newbury Berkshire)- a reagent strip which can detect the presence of nitrites and leucocytes in urine, indicating infection):

F1B: “We have no access to Multistix”.

F2A: “I found out about Multistix by accident, take a packet from the practice nurse or if colleagues have got access to ones from stores”.

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Other nurses in one locality only, however, had full access to electronic urine-testing devices at the GP surgeries where they were based. The loan of the devices to the GP practices was part of a new scheme by the local district general hospital.

The role of the community nurses was not supported by Trust policy in providing a structured continence assessment. This was as a consequence of the absence of standards, guidelines, structured assessment documentation and incomplete clinic support. So much so, that one third of the nurses attending the focus groups (two health visitors, both nurse visitors for the elderly and one district nurse) felt continence assessment was outside their existing role, with comments such as:

F1A: “we shouldn’t be doing them anyway”.

F2A: “HVs are not used to examining.”

F1B “health visitors don’t really have the opportunity to do an assessment”.

F2A “NVEs are not hands–on in any way”.

F2A: (A health visitor) Would feel very uncomfortable asking to physically examine the patient.

Furthermore, the lack of policy support led two district nurses with the qualification of the ENB 978 promotion of continence course to comment that their knowledge and skill was underused:

F1A: “(assessment) skills lost through lack of use, nowhere to document and no standard”.

F1B: “Only some bits of the course [are being] used.

Their role was undermined by feeling unable to use and maintain skills attained during training, which impaired the nurses’ ability to provide effective continence care.
Physical examination was not taking place as part of continence assessments. Three nurses expressed reluctance to take on responsibility for physical examination of patients, whilst seven nurses were willing to do so, but identified a substantial need for skills training:

_F2B:_ “I don’t think I’ve had enough training, especially in physical observations”.

_F2B:_ “I need to know how to recognise atrophic vaginitis”.

However, when the nurses were asked whether they could be more involved themselves in continence assessment, they were able to identify immediate advantages for the patients. One suggestion was for a clear structure:

_F1A_ “district nurse to run clinics, practice nurse to look after people in their over 75s check.”

Other potential benefits from assessment in the community were anticipated:

_F2B:_ “There is a need to identify removable causes”.

_F2B:_ “If we do it properly, we might save money on pads and be offering a better service”.

_F2B:_ “For people with a small problem—say using less than two pads a day, rather than dismiss them, they have a right to an assessment too”.

Clearly, patients were currently missing out on assessment for a variety of reasons, one of which was the need for co-operation between the GP and the nurses to be thorough:

_F2A_ “DNs are not able to test for prostate [enlargement]”.

_F1A_ “need to get the GP to do a PR (rectal examination) on a man”,

_F1A_ “If DNs were to do physical examinations, GPs might challenge that.”
Two nurses identified that more detailed assessments would be:

*F1B: “Very time-consuming”.*

The majority of the nurses regarded the role of continence assessment as a multi-disciplinary responsibility, including the GP, but which might need to be negotiated, as some GPs were not very interested in continence care.

### 6.8 Summary of Focus group findings

In six focus groups held among nurses in the implementation group, topics of policy and procedure development, continence assessment documentation and experience were discussed. Although historically a few nurse had been involved in policy development. In recent professional reviews, no community nurses had been represented. One continence care policy was in use: for children with enuresis, supported by multi-disciplinary guidelines. Otherwise, continence care policies and standards were not in place, and access to urine-testing equipment was variable. A few nurses had experience of using continence assessment guidelines for thorough patient examination and benefits of such care were appreciated by most of the nurses in the focus groups, although they tended to regard the process as a multi-disciplinary responsibility.

### 6.9 Summary of quantitative findings

District nurses appeared to have the key role in assessment, management, and referral of elderly patients for continence care in the community and following secondary referral (specialist treatment). This role was shared by RGNs and undertaken far less and in a more limited way by health visitors and nurse visitors for
the elderly, whose role was mainly social support. The district nurses regarded continence care as their responsibility and they were considered by all of the nurses interviewed to be the most appropriate health care professional to perform nearly all of the activities that comprise continence care for elderly people. They appeared to have experience in many of the practical skills needed to manage long-term continence problems and all other nurse groups referred to them for this reason. Referral routes for patients appeared to be quite complex and variable. New information about continence aids and equipment was available through link nurse meetings organised by the continence advisers, but they were poorly attended. The nurses found their role in continence care, done properly, to be time-consuming, but it was given a lower priority than other key responsibilities.

The nurses appeared to operate within a system structured primarily towards palliative management of continence problems, through the use of continence products, rather than the promotion of continence; the focus upon active treatments and prevention was less prominent. Their perception was that GPs tended to refer patients to district nurses to provide palliative care and this was generally the expectation of their own role, although nurses interpreted that the continence advisers expected the nurses to perform a dynamic role in patient care as well as efficiently managing their patients’ supply of continence products. However, some experiences of systematic assessment of patients were described, although not adhered to consistently, and objective measures of urinary function were not standard practice, lacking suitable equipment. However, some successful treatment of patients were described, and active management described by district nurses and RGNs also included proactive interventions, along with valuable ongoing (long-term) support to
patients. Nevertheless, diagnosis and active treatments were less likely to be a part of the nurse role in continence care, for which they would refer to specialists; the district nurses sometimes performed a co-ordinating role and ongoing role throughout this process.

Some of the nurses were aware of their inadequate knowledge about how to improve outcomes for patients; very few seemed aware of the most common causes affecting elderly people and their treatment. Most nurses had not received a comprehensive training in continence care, they relied upon in-house sessions run by the continence advisers, but these were not a priority in their working lives. Perhaps as a consequence, assumptions about the inability of elderly patients to be successfully treated for continence problems were expressed. These tended to rely upon the mistaken notion that “the ageing process” inevitably causes incontinence. Two factors may have influenced such views: a lack of knowledge of the process of ageing and that many existing elderly patients had additional health problems that might lead to only partial success from any treatments. The client group most commonly seen by district nurses had chronic health problems and it was less likely that elderly people with a continence problem who were otherwise fit would see a district nurse first. A few nurses were aware that successful outcomes in care depended upon the overall health status of the patient and the length of time that the continence symptoms had been experienced. Nevertheless, dynamic approaches to continence care for elderly people were not generally considered.

Focus group meeting discussions identified that the Trust had no existing standards or policies to guide the assessment, treatment and management of incontinence in
adults within the Trust and documentation was inadequate for the task. There were no plans to include contributions from field staff in the current continence service review. Local initiatives in continence care were not co-ordinated across localities or across disciplines except for a systematic multi-disciplinary strategy for treating enuresis in children. As a consequence of no systematic approach to treating adults with continence problems, the nurses’ role in assessing and managing patients was mostly concerned with the provision of continence products, which was frustrating for nurses who held a particular interest in the topic or had experience and skill with more proactive care. Nurses were aware of more structured and co-ordinated continence services in adjacent trusts compared to weak support for continence clinic provision by continence advisers within the Trust. A need for clear aims and structures for the adult continence service were identified by the nurses.

District nurses and RGNs in the focus groups demonstrated most commitment to practice developments in continence care to benefit patients and welcomed the opportunity to develop their role in assessment, diagnosis and first-line treatment with the support of GPs and/or a specialist clinic; two health visitors also shared progressive views of the role. It was noted however that any developments of continence care would be time-consuming, require willingness among GPs for multi-disciplinary co-operation, and training for the nurses in assessment skills.
Chapter Seven

Phase One: Discussion of the Findings

Introduction

The purpose of this chapter is to analyse and interpret the findings from Phase One of the study: the nurses’ education, knowledge, attitudes practice and role concerning the promotion of continence within their organisational context (revealed through a forcefield analysis), against the literature. The findings were used for planning intervention strategies at Phase Two and later for comparisons with data gathered at Phase Three.

7.1 Implementation and Control Groups

From a potential population of 244 community nurses, the implementation (n=50) and control (n=52) groups of community nurses who responded to the questionnaire were shown to be equivalent groups in all but two specific scores in the nurse questionnaire. In terms of demographic factors: representation of each nurse role, hours worked and length of time since RGN and professional training. In terms of knowledge of UI, the implementation and control groups were also equivalent for knowledge of causes of UI, normal anatomy and physiology and for all but three treatment suggestions. In the solution to Vignette 3 (overactive bladder scenario), the control group mentioned bladder training statistically significantly more (29%) compared with 10% in the implementation group, whereas the implementation group mentioned MSU more (36% versus 15%). In responses to question 4, physiotherapy was mentioned statistically significantly by more control group nurses (13%), versus
5%. Speculation about these small differences between the groups may be connected to service provision in the geographical areas of the two groups. In the control group area active physiotherapy clinics operated and were known by the nurses; in one part of the implementation group area a trial of electronic urine testing equipment was being trialed. Mean attitude scores were also equivalent across the implementation and control groups with no significant differences found.

Description of their own roles and opinion of the abilities of other nurse roles described by district nurses, health visitors, RGNs and NVEs were not connected to locality across both the implementation and control groups. Role differences depended upon other factors, such as relationships within primary care teams and the interest and experience of the nurses. For instance, although most health visitors did not perform over 75 year health screening nurse roles, this was described as a function by four who were interviewed, but was an activity connected with both the implementation and control groups. Knowledge of the link nurse role varied across the whole Trust, with only approximately 1/3rd of respondents being aware of the role, but the spread of awareness was similar across both implementation and control groups.

7.2 Community Nurses and Continence Education

The community nurses (n=102) (implementation and control groups) comprised an older workforce, indicated by the mean number of years across all nurse roles since RGN training (23 years). The gap in years until professional training (mean=12.6 years) indicated undertaking professional community qualification later in life, especially for district nurses, with a statistically significant difference between the
district nurses (10 years) and health visitors (15 years) \( p=0.006 \). Nurse visitors for the elderly were a small group (6), who underwent RGN training longer ago than other nurse groups (mean 30 years), whilst the two RGNs who responded to the Phase One questionnaire, trained a mean of 20 years ago. The demography of the group reflect the Audit Commission (1999) findings that over a quarter of district nurses were within five years of retirement. RGNs tended to be a slightly younger group.

Continence education had not been widely available to the nurses during RGN and professional training courses; only 24\% and 6\% respectively, of the nurses reported it. Fewer nurses had benefited from such training than has been found in other studies. In two similar studies that sought information about nurses’ continence education, Cheater (1990) reported a level of 60\% \( n=382 \) and Penney (1999) reported 43\% \( n=75 \) who received continence education during RGN training. One factor to explain such a difference may be related to the length of time since RGN training in this study (23 years), compared to those reported by Penney (18 years), although training in Cheater’s study (14 years) would have occurred at around the same time as that experienced by nurses in this study (1975/76). Whilst the relative lack of training might be explained by the difference in mean years since RGN training, fewer nurses in this study reported receiving continence education (6\%) during later professional qualification, which took place more recently (mean 12.5 years). Confirmation of the lack of continence education as a core subject during community nurse training was given by one nurse who had completed her district nurse training one year before (Interview 1).
Structured post-registration continence education was reported by nurses in the questionnaire, including single study days at the local university department (2%), conference attendance (2%) and undertaking ENB courses (12%), although none of the nurses interviewed had undertaken formal courses. Cheater (1990) and Penney (1999) had identified similar proportions attending such events, except for the level of attendance at ENB courses. Attendance reported at two Care of the Elderly courses (ENB 941, ENB 298) by Cheater was 16% (n=274) and by Penney, 15% (n=75) and in this study, attendance at ENB 941 was (1%). However, in Cheater’s study none of the nurses had attended a Promotion of Continence (ENB 978) course, although it had been available for four years and in Penney’s study one person had attended, whereas 11% of the participants (all but one were district nurses) of this study had attended. Whilst this represented a small proportion of the total number of community nurses employed in the Trust, there was a higher level of access to the Promotion of Continence course than in the other studies. The difference may reflect the professional setting, as the others were nurses working in elderly care wards in hospitals and nursing homes, where the need for education in elderly care might dominate, or it may reflect an increase in general availability of continence education over the intervening years.

From all the sources of continence education identified by 97% of the nurses who answered the questionnaire and 20/29 (69%) of those interviewed, the majority (85%) had received training organised by the Trust continence advisers. This training comprised short (2-3 hour) in-service sessions referred to as “updates” and “awareness days”. The content was apparently more practice-based than theory-based and involved training on management strategies and containment products.
22% of nurses who received this training described that the content concerned continence pads, aids and equipment only. This was confirmed by one nurse (Interview 13) who had taken a short course in another trust and compared it with the content of in-service training experienced in the Trust.

[Interview 13 : 170 - 179] RGN
...it was a couple of hours in the afternoon for about three or four different days and it was excellent because they went into all aspect of incontinence, the causes - they went into catheter care, all the people that should be involved in continence, they talked about urodynamic clinics and it was very much more interesting than anything I have been to here. It was very, very good.

Other nurses who were interviewed described Trust sessions to include visits from product sales representatives, which is a common source of up-dating knowledge among community nurses (Luker and Kendrick 1995, Audit Commission 1999), which tends not to provide theoretical knowledge, but focus upon specific techniques or products for commercial motives. A similar content was reported for link nurse meetings; for example, the types and amounts of bladder washout solutions suitable for use with long-term urinary catheters, which one nurse (Interview 1) described as valuable knowledge. Case presentations were another topic described for these meetings (Interview 28) and were regarded as a valuable source of training.

[Interview 9 : 134 - 136] district nurse
Being a member of the Continence Link Group, I find that quite educational.

These training sessions were of practical value, but appealed to the district nurses more than the health visitors, partly because the topics were practical. The sessions seemed to apply to their work more than other nurse groups, as one health visitor (Interview 14, lines 144-150) explained, information about elderly people, the topic of one session she attended, she thought was not pertinent to her current role, which
may explain why fewer health visitors were interested in gaining further continence education. Attendance at sessions was not a high priority compared to competing work responsibilities:

[Interview 15: 307 - 311] district nurse
You can't always take it up. We do try to get one of us to do each of them so that we can feed back to each other, although it is never quite as good as going yourself, but it is the best we can do sometimes. Oh I am always interested in it, if I can fit it in, yes, because it is such a big part of our work.

The importance of continuing nurse education to supplement and update professional knowledge and skills in continence care has been emphasised regularly (Kings Fund 1983, DoH 1991, DoH 2000a). In replies to the questionnaire, 94% of the nurses endorsed the view that post-qualification education was necessary and 10/29 of those interviewed felt the need to improve their knowledge. However, fewer nurses (73%) replied that they were willing to take the opportunity for more continence education and 22% that they would not do so. One reason was lack of interest among some nurses. Similarly 19/29 nurses interviewed felt satisfied with the level of their knowledge and ability for their existing role, which among health visitors and nurse visitors for the elderly were reported not to have the opportunity to carry out assessment and provide continence care regularly. These nurses reported that their existing level of training was adequate for their limited role, as support was available from the continence advisers and a few clearly did not wish to take on such a role. This explanation is borne out by the response of 64% of the nurses who replied in the questionnaire that they felt adequately prepared for their role. Views were expressed that the training they had received was adequate for their role, but that this was a general role that was rather dependent upon other professionals for support.

[Interview 17: 366 - 372] district nurse
I think I have worked for the Trust for about two years and in that time I have probably been on two full study days and several updates. I think probably,
for what I am expected to do, because I know that I can always refer back, if that wasn't there I would say no because I don't know about specifics, but because I have got back-up I don't need to know about the specifics, I can get that information from other people.

Nevertheless, the majority of nurses (73%) replied that they wanted more continence education and 61% were clear about the deficits in their knowledge and how best to improve them. In the questionnaire, nurses identified topics about which they would benefit from more knowledge: 30% wanted more knowledge about treatments, 15% about normal and abnormal physiology, 15% about aids and equipment and causes and assessment were mentioned by 13% of nurses. Similarly, for interviewees:

[Interview 22 : 94 - 99 ] district nurse
I would like some more teaching on actual causes of incontinence and treatment of incontinence, because I don't feel that I have enough knowledge to know about some of the new modern treatments of incontinence. Yes, I think we all would appreciate some teaching sessions to update us.

Nurses also identified how they would like continence education arranged. It was commented that sessions held by the continence advisers were well attended and that they should teach more (Interview 19 page 52), providing short courses closer to nurse bases, presumably to fit around their working life, with theory and skill-based topics.

The role of continence advisers has performed an important educational role for nurses since their inception (Roe et al 1994, Roe et al 1996), but had not featured as sources in studies by Cheater (1990) and Penney (1999). However, the ability of the clinical nurse specialist posts to provide an adequate amount of teaching to support health care professionals is compromised by competing demands to administer the budget and supply of continence products (Roe et al 1996, Audit Commission 1999,
DoH 2000a). Comparing this study with the two studies described above, Penney reported that training in the workplace (nursing homes) was undertaken by 43% of participants and Cheater (hospital) in-service training 16%, against 85% in this study. It appears that the continence advisers in this study, despite some limitations in the depth of content and appropriateness of subject matter for different nurse roles were offering a comparatively high level of training support for the management of continence problems.

Such provision of regular in-service continence education and training is an important factor in the quality of continence care provided by health trusts, which can impact on patient outcomes (Roe et al 1996), through the likelihood of condition-specific care being provided by community nurses (Audit Commission 1999). However, the community nurses in the Trust had not in general received a comprehensive training for a role in continence care, especially the district nurses, for whom it was a big part of their work, and the majority of nurses (73%) reported having attended just one or two sessions, although nine district nurses reported attending over four. Clearly this has implications for the degree of responsibility nurses are able/competent to take on in continence care.

7.3 Knowledge

Limitations to the amount and quality of continence education experienced by many of the nurses had understandably had an impact upon their knowledge about the subject. The majority of community nurses (58%) reported that they did not have adequate knowledge to care for patients effectively and a significant number of part-
time staff felt inadequately prepared for their existing role in caring for patients with UI. This was expressed as holding them back from effectively helping patients:

[Interview 13: 267-272] RGN
No I don't [feel able to care for elderly people the way I would want to] because I am restrained mainly to giving out pads and assessing and containing the problem. I am not very knowledgeable about other areas of treatment and I feel there must be other areas of treatment that may not be widely used and that we don't seem to know about.

A lack of comprehensive knowledge about aspects of normal physiology, causes of urinary incontinence in adulthood in general, for women and elderly people in particular and suitable treatments and management strategies was evident in the nurses’ responses to section 2 and 3 of the questionnaire. Nurses were aware of a limited range of strategies for patients, so that two-hourly toileting and providing continence aids as a main strategy were still considered to be appropriate. Less rehabilitative views towards older people compared to younger people were evident. Most emphasis in all questionnaire answers and by interviewees was placed upon stress incontinence, prostatic obstruction and infection, whilst overactive bladder and mixed incontinence the most common types of UI in elderly people (Burgio and Goode 1997, Milsom et al 2001) were hardly mentioned. In answers about normal bladder physiology (multiple choice Questions 6-10), whilst many nurses knew the number of times voiding of urine normally might occur by day (78%) and at night (95%), far fewer knew normal capacity of the bladder (52%) and how much is normally in the bladder at voiding (50%), and fewer still knew how much urine might remain in the bladder after voiding (19%). Accuracy of such knowledge has an impact upon the quality and effectiveness of a continence assessment. The interpretation of voiding patterns in bladder charts completed by patients can usefully indicate the type of urinary incontinence and underlying cause (Moore and Fader
This important feature was mentioned in the questionnaire by only 9% of nurses who responded to Vignette 3, as a means of helping a patient with overactive bladder and 8% as a management strategy. It was not referred to by any interviewees in accounts of the care they provided to patients and was missing from 45% of assessment documentation (slightly better than in the Audit Commission report (50%) 1999). Two nurses referred to their personal use of continence assessment models that would have included a bladder chart, but in general there are key questions to be asked about the competencies of nurses to identify and offer possible treatment for one of the most common types of incontinence in older people—overactive bladder—without the use of bladder charting. Urine testing was a further example of a fundamental assessment test whose importance was not appreciated, either in answers to vignettes in which 30% or fewer would have performed a urine test, or in continence documents, where only 19% of patients had a urine test recorded. Although some nurses were aware of infection as a possible cause of UI, testing was not a regular part of practice, including a lack of awareness of a risk of asymptomatic infection, especially among frail elderly patients:

[Interview 1: 35 - 47] RGN
Not initially [done a urine test] unless they presented signs of being infected. Pain, unwell, going to the toilet a lot, then I would do an MSU as opposed to a dip-stick. I would have sent one off.
7.4 Attitudes

A majority of community nurses who answered section 3 of the questionnaire had positive rehabilitative views towards patients with urinary incontinence, its investigation, treatment and management, shown by the mean scores not dipping below 4.0 and the standard deviation not exceeding 1.1. This was found evenly across both the implementation and control groups. Attitudes towards elderly people with UI were also generally positive among nurses who answered the questionnaire (mean score 4.7, range 1-5), more so than Cheater (1990) reported (mean score 3.9). However, in interview data, assumptions about the inability of elderly patients to be successfully treated for continence problems were expressed:

[Interview 30: 66 - 75] district nurse
My view is that in elderly people, very elderly people certainly, it is wear and tear to a great extent, their problems of incontinence, while with a younger person it is going to be more mechanical and far more likely to be able to do something about it. With old people, particularly when we are talking in terms of the over 80s, they are just worn out, their muscles are worn out and however many pelvic floor exercises they do it is not going to make the slightest bit of difference, so don't waste our time on it. I'm being very honest here.

Lack of conviction in offering treatment to all patients and that continence might be a realistic goal seemed most influenced by lack of knowledge of specific effects of age upon the body and that urinary incontinence is not an inevitable effect of ageing (Brocklehurst et al 1999). These views may have been founded on the mistaken notion that “the ageing process” inevitably causes incontinence, which is then intractable, but may also be an expression of the types of elderly patients most commonly seen by district nurses, many of whom have multiple, chronic health problems, which impact on potential for improvements in continence. Similar findings of negative views that originate in ignorance have been commonly reported
(Milsom et al 2001, Palmer 1995, Silverman et al 1997). Two factors may have influenced such views: firstly a lack of knowledge of causes, effective treatments and management strategies including the process of ageing; and secondly that many existing elderly patients had additional health problems that might lead to only partial success from any treatments, so their presenting symptoms appeared complex and an overwhelming challenge. A few nurses were aware that successful outcomes in care depended upon the overall health status of the patient and the length of time that the continence symptoms had been experienced. As a result of questioning, three nurses reflected that their practice may not be equitable:

[Interview 13 : 23 - 28 ] RGN
I think I may well be more concerned about a younger patient with incontinence. Why this should be I don't know, but I think I would be more inclined to perhaps go and discuss it with the GP or find some other way of dealing with it other than with incontinence pads. On reflection I think that perhaps we should do more for the elderly in this respect.

Nevertheless, equitable and proactive approaches to continence care for elderly people were not generally considered (Kiloran et al 1997).

[Interview 25 : 147 - 157 ] district nurse
I have to admit that motivation is higher and you can also identify more sympathy with younger people whether it is because the goal is much more in reach.

These circumstances may have contributed to reinforce nurses holding negative attitudes or their expressed attitudes may reflect a view about old age held by society in general. In any case, a lack of motivation really seems to reflect the nurse’s not the patient’s attitude in the last example.

A poor understanding of the care of elderly people with continence problems seemed to lead, in the above example to a “vicious cycle” of lack of success, lack of
motivation and therefore not wanting to know, even when it concerned a group of people commonly cared for by that professional group. 22% of all nurse roles and 17% of district nurses replied they did not want more continence education. The experience of the district nurses and NVEs was mostly with very elderly people and certainly over 75 years of age. In most community trusts, district nurses would usually be asked to visit housebound people, thus their patients were likely to have a disability or other health problems in addition to urinary continence.

[Interview 23 : 167 - 173 ] district nurse
The majority of our case load are over 65, certainly I think if the majority were younger and had more complex needs, such as people with disabilities, deformities following specialist surgery, if they were the majority then I think that we would need a lot more [education] input, but because the elderly are the majority and it seems very difficult to achieve an awful lot with that age group no matter how hard you try [we do not need more education].

The status of continence care as a nursing activity appears to suffer for these reasons and be a lower priority in terms of offering systematic care and seeking/attending training compared to other key responsibilities, such as leg ulcer management and care of terminally ill patients.

[Interview 25 : 196 - 211 ] district nurse
With wound care and palliative care and things like that which are bread and butter and everyday stuff, I think I am up to date with that and much more than keeping up to date with continence, ... maybe I am not giving 100% in terms of continence advice.
7.5 Key Role and Practice in Continence Care

Data from interviews and focus groups identified that district nurses had the key role in assessment, management, and onward referral of elderly patients for continence care in the community, a role shared by RGNs and undertaken far less and in a more limited way by a few health visitors and the nurse visitors for the elderly, whose role was more concerned with advisory support and ordering continence supplies, not assessment, management or practical care. The health visitor’s continence care experience was mostly with new mothers and children with special needs. District nurses regarded continence care as their responsibility and they were considered by all of the nurses interviewed to be the most appropriate health care professional to perform all of the activities that comprise continence care for elderly people, especially assessment, but except suggesting drug therapy. Although continence advisors were expected to be sources of advice and support their role was seen as less “hands-on”. District nurses had most experience in the practical skills needed to manage long-term continence problems and all members of the primary care team including other nurse groups referred patients to them for this reason, although most referrals were made through patients, carers or GPs. However, the practice of the majority of community nurses in the provision of continence care for elderly people was not evidence-based and comprised the management of UI by the use of continence aids and absorbent products, a finding recognised by health policies for some years (DoH 1991a, South East Thames Continence Advisors Group 1994, Audit Commission 1999, DoH 2000a) and the rationale for drawing up national guidelines for primary care settings (Button et al 1998). Although the nurses’ understanding was that the continence advisers expected them to be well informed
about continence care and to perform a dynamic role in patient assessment and care, this was not well-matched with the main activities of the Trust’s continence services. As identified in other studies, the predominating activities were seen as the supervision and management of the supply of continence products to patients (Roe et al 1994, Audit Commission 1999) and promotion of cost-cutting measures (Clayton et al 1996, Bartholomew et al 1998).

Other possible service resources were not utilised by the nurses. Apart from referrals towards secondary care, such as urology or gynaecology, the community nurses did not regularly apply to other specialist help for assistance, such as the physiotherapists, occupational therapists or continence advisers. Their understanding of other roles apart from GP and other medical services was limited, perhaps because the leadership role of the continence advisers was focussed on immediate management of continence supplies, rather than more broadly to overall Trust service provision and its co-ordination, a common experience within the profession (Rhodes and Parker 1993, Audit Commission 1999).

Assessment was interpreted as a way of administering the supply of continence pads to patients, which may explain why thorough assessment was not regularly documented. Continence assessments for new patients examined in the document survey were incomplete; only half of the continence documents surveyed had 62% of the assessment criteria recorded and some features were consistently undocumented such as fluid input/output, urine testing and the presence of infection. Although this may not fully reflect actual nursing practice, it fails to provide a clear baseline for future comparison of patients’ progress or a systematic approach to care which
should help to identify a range of symptoms of UI and their cause. Roe et al (1996) found inconsistency between actual nursing practice and declared actions and evidence of good practice that was not reflected in the documentation. The perspective of the nurse role as the administration of continence supplies was reinforced by the nurses’ perception that GPs tended to refer patients to district nurses to provide palliative care, which was generally the expectation of their own role. The nurses appeared to operate within a system structured primarily towards palliative management of continence symptoms, through the use of continence products, rather than the promotion of continence.

Other interpretations of the nurses’ role in continence care were found, more often used by district nurses and RGNs; where assessment was interpreted as a means to identify reversible causes, and offer treatment or referral to another healthcare professional and treatments and active management was practised. During interviews, three district nurses identified components of a systematic assessment of patients and two others deliberately used other published models of assessment. Further examples emerged in focus groups accompanied by a frustration with inadequate assessment documents:

\[ F1A: \text{"A proper package of care, treatments and assessment protocol would be better than what we have got already."} \]

Fifteen nurses who were interviewed (eleven district nurses, one health visitor and three RGNs) gave one or more example of improved outcomes for elderly patients whom they had cared for, involving either active treatments or management methods. They performed a range of interventions that supported patients and were reported in some circumstances to relieve symptoms or manage complex continence problems.
Most treatments/management techniques were represented in the examples given, including monitoring medication for overactive bladder, teaching and supporting patients using intermittent catheterisation, teaching and monitoring pelvic floor muscle exercises post-prostatectomy, aiming to improve symptoms and promote continence. Such proactive interventions also require skilled application, as demonstrated in one example where the topic of long-term catheterisation required sensitive introduction as an option for one patient and demonstrates that long-term support and encouragement to patients provides a vital ingredient in the nurse-patient relationship for long-term conditions, as also noted by Bartholomew (1998).

Many active management strategies were associated with providing continence pads, so might not have been identified as active roles unless specifically sought in interviews. Conclusions drawn elsewhere (Roe et al 1996, Bartholomew et al 1998, Audit Commission 1999) have not identified active roles attached to palliative care. This type of active symptom management and care is considered as a particular nursing challenge, requiring a range of techniques, such as carer-led prompted voiding, management of diuretics, functional aids and intermittent catheterisation (Bear et al 1997, Colling et al 1996, Norton 1996, Fader 2002). Such techniques are an area of practice least well supported by robust clinical evidence within the research agenda, as they are less easy to research than active treatments, particularly as combined strategies (Button et al 1998, AHCPR 1996, NMPDU 2002).

Innovative roles for frontline nursing staff are actively encouraged in the recent healthcare reforms (NHS Plan DoH 2000b), especially for primary care trusts (PCTs) (DoH 2002a, DoH 2002b). Although some have been introduced since the study took
place, others, such as nurse prescribing (where an early example of such
development was under way within the Trust) had been embraced by community
nurses and supported by primary care trusts. Nurse prescribing has remained, since
inception, in high profile as an exemplar of how extended, innovative roles for
community nurses may demonstrate improvement in the quality of patient care
(Green et al 1980, DoH 2002b). Other examples of role development for community
nurses include venous leg ulcer management in the community by district nurses
(Morison and Moffat 1994, Luker and Kendrick 1995), enhanced roles for health
visitors in child health (Kendrick et al 2000) and has extended to the field of
continence care with the management of community based continence clinics and the
The development of proactive roles in continence care is clearly within the capability
of community nurses within the field of continence care (O’Brien 1991, Seim et al
1998, Williams et al 2000), where nurse assessment, first-line treatments and
management of UI have been successful, assuming clinical governance
infrastructures of education, best practice guidelines, resource allocation and
evaluation accompany them (Button et al 1998, Abbott and Hotchkiss 2001). Within
the study setting, the role of link nurses went some way to provide a co-ordinated
approach to continence care provision described within a handful of practices, where
one person had responsibility for attending meetings, reporting back to colleagues,
and undertaking assessments of the practice’s patients with UI. More generally,
though, link nurses were not those with a formal qualification in the promotion of
continence and the role was not widely recognised. Moreover, it was notable that two
nurses who had undertaken the Promotion of Continence course (ENB 978)
expressed frustration that use of their specialist knowledge and skills was limited
within their current role. This reinforces much commentary upon projects (Abbott and Hotchkiss 2001, Dunning et al 1999) and health policy in general (Halligan and Donaldson 2001) that without coherent approaches and leadership the best use of existing resources of knowledge and skill can be lost.

7.6 Organisational Context

The setting for the study was a large community health trust in the south of England. Forcefield analysis of study settings is fundamental to action research (Waterman et al 2001, Lewin 1951). Drivers for and barriers to change in the development of clinical care in both general terms and specifically for continence care provided by community nurses were identified to originate from organisational structure and policy, leadership and culture within the Trust.

A significant influence was the philosophy and leadership at a senior managerial level of the Trust. Clinical governance responsibilities were uppermost on the Trust agenda, in preparation for legislative changes (DoH 2000b); and restructuring within the organisation reflected the philosophy and aims of quality improvements and accountability. In this regard, the organisation was proactive towards forthcoming legislative obligations, having combined established managerial departments for research and development, clinical effectiveness and audit following its emergence from a merger between two separate trusts at the beginning of the study period. Dissemination of clinical effectiveness matters was widespread and audit activity was a regular component of the lives of field staff, although certain topics dominated,
which did not include continence services and care. The study and its aims were valued and supported at senior level in the organisation, from whom the steering group was mainly drawn, so could be strong influences.

However, change upon change within the Trust continued throughout this and following Phases of this study. The impact during Phase One was observed in six months’ period of stasis owing to insecurity among managers during the merger and restructuring period and subsequent loss of key managerial personnel and a settling-in period for their replacements, who were not familiar with community nursing roles. The study came to a temporary halt at this time. A later effect was internal competition for lead clinical posts and planning for change in the formation of primary care trusts. Other developments competed with this study throughout its duration in the form of fixed availability nurse prescribing training, which occupied key staff in mandatory training. Therefore distraction at all levels within the Trust occurred, by no means an ideal situation in which to introduce interventions in clinical practice. Stable situations are far more appropriate (Marquis and Huston 2003, Garside 1998), but increasingly rare in this era of rapid healthcare reform (Baker 2000a).

Fundamental restructuring in the organisation placed some new middle managers in a position of inexperience in clinical leadership among community nurses. They were occupied in establishing themselves and in general were diffident to assist in the development study in permitting access to staff and co-ordinating guideline meetings. Organisational culture over recent years had shifted away from involvement of mixed professional groups from each level of the organisation in the
formulation of new policy. Educational opportunities most valued were formal external courses, and correspondingly, a learning culture whereby in-service training opportunities were utilised was less valued. Professional and managerial cultures were not fully established. Lack of change in practice is associated with profession conservatism. At the individual level, interest and capability need to be fostered and supported by organisational culture policy and practice, with provision of resources. In terms of identifying the organisation as a “learning organisation” where the culture is one of acceptance of change and clinical progression, which is in turn supported by adequate resources and processes, only some of the above features are positive signs (Garside 1998, Kitson et al 1998, McCormack et al 2002).

The most powerful driver for change supporting the development and implementation of clinical guidelines was the proposed health authority review of continence services (an external driver). Where service development plans have the authority from and are embedded within organisational policy, they are far better supported (Humphris and Littlejohn 1996, Dunning et al 1999). However, the review was reactive, motivated by an urgent requirement to reduce expenditure on the management of incontinence, to establish a more systematic approach within the service and rationalise continence products. More proactively, though, the review demanded the establishment of suitable care pathways for patients and setting standards of assessment and care by community staff. Policy for continence services had hitherto been underdeveloped, a common issue across trusts although exemplars have been reported (Continence Foundation 2000, Thomas 2004) and best practice for community nursing was not supported by written guidance. The role performed in continence care by the nurses was limited. Although they were working with patients
Chapter Seven: Phase One: Discussion of the Findings

experiencing urinary problems, they operated in the absence of clearly defined expectations, standards and the physical resources in the form of a detailed assessment form or urine testing equipment necessary to perform thorough continence assessment. Continence services have been reported as generally poorly developed and the availability and quality of existing continence services in the UK are variable (DoH 1991a, Audit Commission 1999, DoH 2000a), with some trusts, not employing a continence adviser or offering a restricted service (Clayton et al 1996, Continence Foundation 2000). Others have developed highly integrated services comprising accessible promotion services in primary care, supported by continence advisers, linked to secondary care, via integrated pathways (Tower Hamlets 1997, Nolan 1997, Thomas 2004).

Support for community nurses to fulfil an effective role in the promotion of continence in primary care has been clearly recognised through government policy initiatives (DoH 2000a), especially within PCTs (DoH 2002a, DOH 2002b) and the delivery of the “National Service Framework for Older People” (2001) published since this study took place.

7.7 Conclusion for Phase One

Findings from a combination of data sources revealed that community nurses had not received comprehensive training in the promotion of continence, especially district nurses, for whom it was a major part of their work. The majority of all of the nurses felt they had inadequate knowledge to care for patients effectively and were willing to attend training. Lack of knowledge affected the quality of continence care and influenced attitudes towards elderly people with UI to be negative (Cheater 1990,
Burnet 1992, Palmer 1995, Penney 1999). Much could be done to promote ideas and practice of equitable and proactive care for elderly patients and break the cycle of negativity caused by lack of knowledge. An education programme would therefore be an essential component of the development and implementation of clinical guidelines. Content to include would be: causes, treatments, management; building assessment skills including the interpretation of bladder charts, physical examination (Button et al 1998). Other resources would need to include appropriate assessment documentation and urine testing equipment for the nurses to use (Moore and Fader 1999). Familiar with local half-day in-service training sessions, the nurses expressed preference to continue this pattern to be compatible with working life and for continence advisers to provide the training. This would need particular encouragement, as the teaching role of the continence advisers was impeded by other responsibilities. Although district nurses provided the major role in continence care it was justified to include all the community nurses in the education programme as all were involved in the provision of continence products and any service development needed to be applied equitably (DoH 2001).

Although the role of community nurses in the promotion of continence focused chiefly upon the assessment and management of continence supplies, aids and equipment, the practice identified by some district nurses was allied to the intention for practice development and the policy agenda. Their practice knowledge utilised more thorough assessment techniques and skills, described using behavioural techniques and actively managing patients’ UI symptoms. Moreover, a core of nurses with a qualification in the promotion of continence or a role as link nurse exhibited enthusiasm for the topic, but whose interest and skill was underused. Their involvement would be key to the success of any service development in continence
care (Clayton et al 1996) and should be encouraged in the planning and process of
guideline development and implementation (Marquis and Huston 2003). The
implementation process could be assisted in two ways: by strengthening the
theoretical knowledge of this group of nurses alongside their practice knowledge and
encouraging them to act as role models and early innovators to diffuse the discussion
and adoption of the guidelines (Rogers and Shoemaker 1971).

A major driving force for the initiative to develop and introduce guidelines was the
health authority review, which coincided with the time-frame of the study. The
review provided authority and infrastructure support to ensure progress that would
otherwise not be available (Kitson et al 1996, Garside 1998). Nevertheless,
leadership for the process was necessary and the researcher provided this role, using
allies among the steering group members, along with the use of a change model to
organise the process and analyse driving forces and resisting factors. Components of
organisations identified in the EFQM model (1999), indicate the complexity and
balanced importance of interrelated components that support or impede effective
professional development within healthcare organisations; these include leadership,
policy, strategy, partnerships, resources and people; it is a useful model with which
to plan effective change. No component can be considered in isolation; and
predictors of outcomes are found in the existing qualities of organisations- the extent
to which they are “learning organisations” that embrace change in a supported and

Overall, the situational analysis showed a Trust that had experienced recent
upheaval, but was moving towards becoming recognisable as a learning organisation
(Muir Gray 1997). The challenge to the researcher was to build on the pockets of enthusiasm for change in continence care that existed.
8.1 Introduction

Phase Two of the study took place between September 1998-September 1999, with activities overlapping Phases One and Three (see Figure 3.1 Chapter Three section 3.1). Phase Two comprised three stages: enquiry, method and results, as shown in Table 4.1 (Chapter Four section 4.1), with the enquiry stage following on from and responding to the conclusions drawn from Phase One. Community nurses only in the implementation group took part in the interventions within Phase Two. The enquiry stage comprised stakeholder views from a pilot of the new guidelines. The method stage comprised the nurses in the implementation group taking part in a series of educational interventions and the implementation of clinical guidelines and the results stage comprised reflection upon the effectiveness of the process and interventions. The stages are discussed in this chapter as though they occurred consecutively, however in practice they overlapped. An intensive period of planning and providing educational and implementation strategies for the nurses in the implementation group took place simultaneously with four focus groups (trial and discussion of new guidelines and documentation) and development of the clinical guidelines. Composition and other details of the focus groups were described in Chapter Three section 3.4.5 and are further explained here in section 8.3.5.
8.2 Enquiry Stage

In this stage stakeholder views from the community nurses on the use of new documentation and guidelines in a pilot within their own practice over one month were examined. Participants in focus groups (implementation group only) contributed to the development of clinical guidelines (see Appendix B), during a process that took seven months (October 1998-April 1999) and overlapped Phase One and Phase Two. The focus groups took place in the later stages of the process (January-March 1999).

During an early focus group, the principles of a more detailed role in continence care and preparedness of nurses to contemplate such a role had been broached (see Chapter Six Section 6.6), discussed and carried forward by asking the focus group members to pilot the guidelines themselves and with close colleagues. Feedback of their own and colleagues’ comments upon the design and pilot of the continence assessment documents are presented here.

8.2.1 Pilot

Focus group participants were self-selected from attendees at community nurse meetings. These community nurses piloted the guidelines within their own practice over one month. Nurse experience in using the new documents was gained only among the district nurses and RGNs. Eleven nurses used the new documentation, but owing to some diffidence on their part at first, few attempted a full assessment using the new documents, or through lack of opportunity. The detail provided in comments did however identify that some nurses had been committed to the task with new
patients and there had been discussion with team colleagues. In the focus groups, nurses attending discussed their views and also reported comments made by colleagues with whom they had discussed the guidelines. Other nurses telephoned or wrote independently to the researcher about their views and experience in taking part in the pilot. Comments are presented in relation to the four guiding principles used in the development of the clinical guidelines (Chapter Four Section 4.3.7).

8.2.2 Patient involvement and systematic assessment

The nurses offered opinions about patient involvement in the assessment based upon their inspection of the documentation and using the patient questionnaire to assess new elderly patients. The nurses’ views were evenly balanced between those who held positive and negative views about patients and carers having more involvement in the assessment process, by their completion of one section of the form. Although one nurse could envisage advantages, she also thought completion of an assessment form might alarm the patients:

F2A:” I think they [the patients] might be terrified, in another way, the chance to think about it, if you send the form and not be too embarrassed at the interview with them and help them if form not properly completed”.

She could, as did five others, see the benefits of patients having the chance to consider their problem before being assessed by the nurse, and from contributing actively:

F1B: ”It’s got to be better for the patient”.

Two nurses suggested a solution to the potential problem of patients finding it hard to complete the form:
F1A & F2B: “A member of the family/Carers/helpers could help them to do it”.
This was an advantage also for someone with memory problems, but who was able to measure her urine:

F1C: “One lady with Alzheimer’s [disease], the assessing nurse felt the fluid balance chart was very useful” (reported by RGN colleague).

However, two nurses wondered how valid the exercise was for elderly people:

F1B: “What’s the point [of a full assessment] in advanced age?”

Three other nurses commented that completing the patient questionnaire and a bladder chart would be too much for elderly patients:

F1A: “Lots [of older people] won’t be able to do it”.

Difficulties associated with illness or disability among patients did present particular obstacles, in a few cases, to completing the patient part of the assessment. One patient was too ill to take part, one nurse assessed a patient who was unable to write, one patient was found to be blind and another nurse found that patients did not always have appropriate cognitive ability to complete the patient section:

F1B: “The two patients I tried to use it with, I found neither patient had the mental function to complete it”.

Another issue was that a high level of explanation was needed in some cases to enable the patient to participate. Two nurses described this especially regarding the fluid intake/output chart; another described how one patient refused to fill in the form and another to have a physical examination. It became evident that it would be necessary to consider the accessibility of the documentation for patients and offer explanations to patients before offering them the patient questionnaire. However, there was evidence that once patient co-operation was engaged, they became active participants in finding the problem, as described here:
F2B: “Had the patient’s co-operation, the GP had done a physical examination and had identified the problem, they completed an input-output chart.”

Uncertainty about a fresh approach to patient assessment was expressed and experienced in several ways, here in the ability of patients to co-operate in the process and in the following paragraphs, resources of time, equipment and skills.

The whole assessment process was described by two nurses as more time-consuming than previously, in one case the nurse section of the form took one and a half hours to complete and extra time was needed for the patient section, whilst the other nurse had this experience:

F1B: “It took two afternoons to fill it in and [the patient] did not complete the chart”.

Whilst lack of familiarity with the documentation would inevitably mean more time would be needed for its completion, a thorough nursing assessment in any setting is likely to take at least one hour (Abbott 1998). Another related point made by two nurses highlighted that duplication of information required for the continence assessment with earlier or other nursing assessments may occur, leading one nurse to suggest:

F2B: “Patients would be better with patient-held records so that all the information is together”.

Most of the nurses (11/15 nurses) who used the new approach reported improved quality of assessment data gathered from patients. They commented that the forms supported a logical process, were comprehensible to nurses and in general, to patients and could provide valuable information about the patient’s problem, as described here:
F2C: “It was very useful to talk about the use of the fluid balance chart and when it [UI] happens and bowel problems”.

8.2.3 Inclusion of physical observations and examination

Practicalities of performing objective measurements presented some obstacles in the minds of a few nurses, such as compliance of patients in measuring urine output:

F2A: “They won’t be able to measure urine, it’s hard enough in hospital”.

F2A: “Are we going to give them jugs, how feasible is this?”

Lack of familiarity with a systematic continence assessment caused one nurse to comment:

F1A: “Not ideal examining someone at home, prefer to examine in the surgery, for hygiene reasons”.

Resources were identified that would be necessary to perform physical observations and examination, such as urine testing equipment and facilities for bladder scanning:

F2B: “We don’t use Labstix much at present, it’ll need to be part of our equipment”.

F1A: “May mean more bladder scanners are needed, as we usually wait a week for an appointment with the continence advisers”.

Some features of physical examination were related to existing practice, such as rectal examination and vaginal examination was performed during the management and change of a vaginal pessary. However one nurse specifically requested skills training for identifying atrophic vaginitis. Skill and knowledge for the performance of physical examination was the major requirement identified by nurses for performing assessments.
Summary of nurses’ experience of using pilot guidelines

District nurses and RGNs were the community nurses participating in the focus groups who had most opportunity and/or interest in using the new assessment guidelines and documentation with new patients. Although at first uncertain, they entered fully into the evaluation process, both individually and by feeding back comments from discussion with colleagues who collaborated in the trial. They identified many advantages of a systematic assessment for patients, however they also highlighted new challenges that arose from involving patients more actively in assessment: in collecting information about symptoms and history and taking physical measurements, which identified the need for better preparation and explanation for patients to contribute. They also found that additional time was required to complete the assessment. Moreover, the process of undertaking the trial with patients highlighted for some nurses gaps in their knowledge and feelings of uncertainty associated with a more proactive role, especially with elderly patients.

8.2.4 Care pathways to identify types of UI, setting positive objectives for treatment/referral

All of the nurses appreciated the logical progression within the documentation that helped identify the type of UI and treatments. Favourable comments were made about the value of bladder charts, urine testing and the identification of constipation as a reversible cause, ultimately viewing the process as a way of providing effective care for UI:

F1A: “Treatments of reversible causes can be successful”.

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F1B: “If assessed properly, they might not need pads”.

Overall positive comments were made, such as:

F1B: “Quite good to draw everything together at the end”.

Views that information gathering and diagnosis would be improved were confirmed, even where the assessment was limited, as this comment suggests:

F2B: “I used it for one new patient— it helped to decide diagnosis. They did not have a jug to measure output, but could have done input.”

Another example shows that the nurse was proactive in involving the continence advisers in addressing the patient’s problem:

F2B: “I sent [completed] form to continence advisers who then phoned up with advice.”

More examples were given of nurses being able to identify problems and initiate treatment for patients. The guidelines and supporting documentation had apparently equipped some nurses in such a way that their role was strengthened:

F2B: “I diagnosed and treated overactive bladder in this patient. Doing very well”.

F1C: “You think there’s no point and pads are the obvious choice, but the success we’ve had with this lady has been so good”.

(Assessment documents for these two patients were subsequently anonymised and used as teaching tools in guideline training and during the workshops that were part of the day conference). The first patient had completed an assessment form giving a valuable account of UI symptoms and her bladder chart demonstrated clearly the pattern of micturition/UI associated with overactive bladder. The second patient showed in her account that timing and strength of diuretic medication was contributing to her problem. Review of the dosage and timing of the doses (through the GP) ensured that she could reduce symptoms of nocturia and UI.
Understandably, there was some uncertainty among a few nurses of more detailed expectations from their role in assessing patients. One person (nurse visitor for the elderly) expressed reservations in this way:

\[ F2B: \text{“I don’t feel happy about this [assessment], why aren’t the continence advisers doing this anyway”}. \]

However, she had not herself performed an assessment using the new approach. Another raised the issue of physical examination of patients as sensitive, and another was not sure after performing the assessment what to do next with the knowledge.

\[ F1B: \text{“I identified unfamiliar problems, what to do”}? \]

Such comments highlighted that education and training were important ongoing factors in the successful implementation of clinical guidelines:

\[ F1C: \text{“More in-depth training and supervision will be required”}. \]

In preparation for the implementation of the guidelines, the nurses made the following recommendations:

- Clear explanations for patients on filling in their part of the assessment.
  Alterations to the care pathways/documentation to provide more space on the form for the patients’ medical history and improved instructions for both nurses and patients to complete the bladder chart.

- Training in assessment skills, which was the topic most mentioned by nurses, (7/15 who piloted the guidelines) chiefly in the physical examination of patients.
Summary of nurses’ views of assessment

The majority of nurses in the focus groups (12/15) were willing to develop a greater role in the assessment of UI for elderly people and all of the community nurses appreciated the possible advantages for patients of a systematic assessment, although three nurses (two NVEs and a health visitor) expressed unwillingness to do so. Whilst some of their experience confirmed initial reservations about patient participation, other experiences showed that they had acquired new insights and some successful outcomes from using a more detailed approach to continence assessment, care and treatments, but would require more time to complete.

Collecting information about symptoms and history and taking physical measurements were experienced as involving patients and their carers to good effect and ensure reversible causes were identified. In particular, the value of detailed patient history and fluid intake/output chart analysis was appreciated and importantly, that assessment features then assisted with a working diagnosis and treatment options in a few cases. Three nurses reported that the new process led to successful treatment being offered to patients. The way in which these successes were reported suggested that it was not very usual to have such an outcome and the nurses seemed enthusiastic about their achievement.
Disabilities associated with old age were found to prevent full participation for some elderly people in the pilot, with the consequence that six nurses made negative assumptions about the value and capability of elderly people to contribute and comply with continence care assessment and treatment, which might obstruct equitable access to health care. However, several identified solutions to such problems and suggested accessible ways to present the assessment material or in more careful introduction of the approach to the patients.

Specified training requirements identified in the focus groups were included in the education strategies to support guideline implementation. These concurred with those identified in the conclusions from Phase One, that education, in particular physical assessment skills training and urine testing equipment would be required for the nurses. Negotiations began to enable the purchase of urine-testing equipment for use by the nurses and to ensure a supply of stationery once the guidelines were launched, so that staff would not have to photocopy their own stationery supplies. Educational strategies were planned to address the general and specific learning needs identified by the community nurses.

8.3 Method stage: education strategies

A range of strategies were planned and used to raise awareness about the promotion of continence among the community nurses and to introduce and promote ownership of clinical guidelines in the implementation group. The strategies were chosen to respond to the specific needs, working life and practices of the targeted staff and
originated from successful strategies reported in the literature (NHSCRD 1999). They included the following:

8.3.1. Educational workshops

A series of 12 workshops were held between November 1998 and March 1999. They were planned well ahead, widely advertised and held locally for the nurses in order to be as accessible as possible. Topics included anatomy and physiology, causes, types and treatments of urinary incontinence, all of which were subjects that the nurses requested in responses to the nurse questionnaire, interviews and focus groups at Phase One.

The research design included a plan to offer education workshop sessions for the nurses, in collaboration with the continence advisers. The aim was to make the sessions accessible to all the nurses, so the schedule was planned as a series of half-day workshops (2.5 hours), to include both mornings and afternoons on different days, so that part-time staff could be assured of a session upon a working day. They took place over five months, avoiding the weeks around Christmas and were held at local sites within the implementation group. The sessions were advertised with a poster and invitations sent to the nurse co-ordinator at each base and a request to announce the events at their meetings. Content of the sessions (Programme in Appendix F) reflected the nurses’ stated needs, information about newly published guidelines (Button et al 1998), the development of local policies and guidelines (health authority review), normal and abnormal physiology, causes and types of incontinence especially for elderly people and effective continence assessment. The
style of the sessions was planned as team teaching and using a variety of teaching materials.

This original plan was for one or more of the three continence advisers to contribute alongside the researcher at the events, as they were the established local experts and respected by the staff. The researcher would be responsible for organisation of the events and providing resources (advertising, portable overhead projector, handout copies, commercial leaflets, refreshments). However, the continence advisers withdrew their support after two workshops, partly on the grounds that the numbers of nurses booking to attend (5-7) were far fewer than they were used to when holding teaching sessions. The senior adviser regarded small group sessions as an unproductive use of her or her colleagues’ time. Thereafter, the researcher continued to run the sessions alone.

8.3.2. Introductions and launch of the clinical guidelines

These were presented as a series of six half-day sessions across the implementation group held during April and May 1999. A more formal approach was used to advertise the event, than was used for the other events, partly as it was regarding a new Trust policy and involved new procedures and documentation and partly with the aim to improve attendance rates. Every member of nursing staff in the implementation group was sent a personal letter from the locality director, who was responsible for the continence service, requesting them to attend one of the sessions, giving the schedule times and dates of six sessions (see Appendix F). Particular care
was taken to make these sessions accessible for all staff in their duration and by spacing them over two months. Individual copies of the guidelines were distributed at these sessions along with a supply of “Multistix 10” (Bayer: Newbury, Berkshire) urine testing reagent strips for use at each nurse base.

8.3.3. Conference

A one-day conference was held in May on treatments and the management of incontinence, with invited expert speakers and including practice workshops on bladder charts, bladder scanning, pelvic floor muscle exercises (programme in Appendix F).

8.3.4. Outreach meetings

These were small group discussions at community nurse bases to inform staff who had not attended the previous sessions or who requested further explanations. Visiting sessions to the nurse bases were the most responsive to fit into their working pattern and the most acceptable from their viewpoint. These visits also ensured that individual copies of the guidelines were distributed to all community nurses in the implementation localities. The researcher visited 10/24 nurse bases.

8.3.5. Focus group meetings

Focus group meetings performed several functions in the study. It was discussed earlier how they contributed data to Phase One of the study in terms of policy and
continence care practices (Chapter Six Section 6.6) and in Phase Two as a vehicle for nurses to feedback from the pilot the guidelines and assessment documentation Section (8.2). Focus groups also had a third function as a discussion group for nurses to reflect upon their values and opinion of their role in continence care and the development of practice, both within the focus group and within their nursing teams in the Trust. Evidence of such discussion was made available in the last focus group meeting and from the researcher receiving 8 telephone calls and four letters during Phase Two with comments about the nursing role in continence care.

8.3.6 Supported use of guidelines

During a period of four months following introduction of the guidelines staff in the implementation group were supported by the continence advisers in their use of the new clinical guidelines. This period also included monitoring the standard of compliance with the guidelines and quality of documentation associated with their use.

8.4 Results Stage: Evaluation of Strategies

The educational strategies are evaluated here. Attendance figures for education strategies 1-4 are shown in Table 8.1. Attendance at focus groups was shown in Table 6.3 in chapter Six section 6.6. There were no data on the supported use of guidelines by the nurses provided by the continence advisers.
8.4.1. Education workshops

Twelve half-day sessions were held across the implementation locations between November 1998 and March 1999. 63 (45%) of nurses employed there attended out of a possible 140 (See Table 8.1). RGNs attended proportionately more than other nurse groups (83%). Fewer than 50% of nurses in other nurse roles attended and no NVEs.

Comments made in the evaluation questionnaires completed by 58/63 participants showed a favourable response to the content and style of the workshops. Most of the sessions (10/12) were taken alone by the researcher after the withdrawal from participation of the continence advisers on the grounds that too few people were attending the workshops; perhaps indicating a lack of commitment. However, the participants on their evaluation forms regarded the small numbers of people...
attending the workshops as a positive feature. 69% liked the open informality and small group size that allowed everyone to participate, with comments in the section asking “What did you most enjoy about the sessions?” Such as this:

“Small group with participation and discussion.” (no 15)

The content and style of the sessions were favourably commented upon.

“Well-prepared, with enthusiastic, positive outlook,” (no. 43).

“Excellent presentation- friendly and appropriate” (no48)

25% appreciated the chance to discuss their practice and current clinical problems, which arose during discussion of quiz solutions and case studies as well as the theoretical content :

“How clinical symptoms are linked to causes”, (no.15).

Educational strategies that appeal to different professional groups have not been widely researched. However, certain principles such as group education have been found to have distinct benefits (Bero et al 1998). Green et al (1980), asserted that the impact of education relates directly to the level of assessment of learning need prior to interventions is required and the impact of education is proportional to the degree of active rather than passive participation in learning. Hence, the importance of the nurses’ contribution to identifying their own learning requirements during Phase One of the study and deliberately seeking their active participation in group work such as the focus groups and during workshops. During the educational workshop sessions, information-giving portions were interspersed with a quiz and case study scenarios. In these activities nurses worked alone to consider the answers and then discussed responses with the group; everyone contributed to the discussion. Lomas (1994),
Davis and Taylor-Vaisey (1997) and Grol (1997) found that active involvement and interaction were more successful with participants than using literature or passive dissemination of material and Thomas et al (1998) concluded that educational interventions were beneficial for nurses in preparing for introducing guidelines. For practice-based professions new theoretical material needs to build logically upon what is already known and appropriate to the professionals. Active learning strategies were deliberately used in the sessions to stimulate interest in learning sets that resembled practice situations and get the nurses thinking how they could apply new knowledge to their everyday experience using case study material.

However, total numbers of attendances at the workshops was disappointing and achieved just 45% of the implementation group. Responses in the questionnaire that nurses felt they had inadequate knowledge about the promotion of continence (62%) and that 70% of the group would take the opportunity to undertake more training was not operationalised. Explanations for the relatively low turnout were sought. Marketing of the events was not at fault. However, the staffing level during this period was under strain. Other training was competing for nurses’ attention (nurse prescribing) and key nurses were attending weekly primary care group meetings, so that the remaining staff were required to cover for colleagues. Nevertheless, at least three nurses attended the sessions on their day off, so there was some evidence of a desire for learning about continence care that was put into practice by nurses, which was not generally supported in their working systems. Certainly though, comments from interviews indicated that continence care was a less attractive area of practice for some nurses than other professional responsibilities.
8.4.2 Guideline Introduction

Publicity, senior managerial support and the involvement of all three continence advisers gave the strategy to introduce and explain clinical guidelines for the promotion of continence “official blessing” and achieved the best attendance rate (54%). However, it was surprising that comparatively few had responded to a personal request from the locality director responsible for continence services about a new piece of Trust policy. The failure of community nurses to attend the formal introduction of policy may reflect their sense of professional responsibility and accountability for implementing official Trust policy. This was evident among the low turnout of health visitors, who were a poorly represented group and NVEs who did not attend at all, confirming their lack of involvement in continence care. The priority for individuals in all nurse groups to attend was low.

Another interpretation was that this method to introduce new Trust policy was managed differently from the usual method, which was low-key, without explanatory sessions for the staff and not actively managed, with no sanction for non-attendance. Features that identify trusts as learning organisations include established, deliberate strategies for procedure and policy changes that might support such a new development (DoH 1996a, Garside 1998). In their absence, Kitson et al (1996) Humphris and Littlejohn (1996) and McCormack et al (2002), predict poor levels of guideline implementation. This intervention was used as an opportunity to distribute individual copies of guidelines to staff. They served as reinforcement to the training session knowledge, although, by themselves such documents have been found to improve knowledge substantially (Williams et al 1995).
8.4.3 Day Conference

As for other events, the conference suffered poor attendance. 16 clinical nurses and five nurse managers attended. A clue for one explanation was found in that four nurses who attended the conference came on a non-working day, which suggests that it may not be lack of interest in the subject so much as the pressure of other commitments in a busy working schedule, for those with interest in their professional development. Planning for replacement staff to relieve nurses so that they might attend was another issue. Nurses expected to or were expected to manage within existing workforce resources when planning for in-service training, suggesting an absence of flexibility and a positive learning culture within the organisation. Organisations may explicitly value education, research and the sharing of best practice, but without adequate systems to support the development of knowledge and practice implementation projects involving the enhancement of practice have repeatedly been undermined (Eve et al 1997, Dunning et al 1999) and it relies upon nurses as individuals to maintain and improve professional knowledge (Luker and Kendrick 1995, Mulhall et al 1998).

8.4.4 Outreach visits to nurse bases

26% of nurses (n=140) received visits from the researcher at their work bases to discuss guideline introduction. Some nurses had already attended other events and required help with the application of aspects of the guidelines (24), whilst for a smaller number (10) this was the only personal contact they had concerning the new policy. Nurses, in their questionnaire responses and interviews, identified the
workplace as a valuable setting for education and training, so that sessions could fit around their work commitments, as found similarly by Thomson et al (1999), who also identified that another value of this method was the access to opinion leaders, through whom influence for change can be promoted. Outreach education resources provided by the wider organisation as part of a change initiative can help to build competence, more positive attitudes, thence change in beliefs and behaviour of individuals, and through discussion, operate at Rogers’ (1983) persuasion level of the diffusion of innovation model (see Chapter Two section 2.17).

**8.5 Overall Discussion of Phase Two**

Phase Two took place over a prolonged period. It comprised the following:

- Focus groups that aimed to discuss continence care policy and practice and whose participants later took part in piloting guidelines.
- Education interventions
- Ongoing support

For one year, the profile of continence care was deliberately raised amongst community nursing staff and managers within the implementation group of the Trust using a range of interventions. The length of time taken can be justified by reference to the literature. The experience of studies in practice settings (Dunning et al 1999, Abbott and Hotchkiss 2001) reinforce management of change principles (Marquis and Huston 2003), that the amount of time needed to introduce change cannot be underestimated and the pace of change also has a strong influence on its successful introduction. Participants require time to contemplate novelty: time to learn about the
new, be persuaded, test the acceptability of the innovation and finally adopt or reject the innovation (diffusion of innovation model) (Rogers 1983).

At the same time, active involvement in the process of change enhances successful adoption (Stokols 1992), which was the intention of using focus groups both for discussion and as a vehicle for the guideline pilot. The opportunity to try out guidelines in the design stage has been found to give a better chance of later adoption (Grilli and Lomas 1994, Oxman et al 1995). Active educational strategies such as workshops (also included in the conference agenda) were designed for this study, as they operate more successfully than passive dissemination of information (NHSCRD 1994) and are particularly useful in nursing (Thomas et al 1998). All of these issues were considered when planning and providing the implementation strategies, so that the particular strategies were chosen deliberately for their known benefit in healthcare settings, although specific benefit to nurses is not well-established.

Whilst it is widely found that multi-faceted educational and active change strategies are most successful in the promotion of change, they are also the most costly to implement (Davis and Taylor-Vaisey 1997, Wensing and Van der Weijden 1997). Early on in this study, the continence advisers felt unable to commit time resources to provide education strategies for the staff and took part in only one strategy after that. It would be reasonable to speculate that without the researcher in post in this study, that the guidelines would have been introduced to the Trust without any educational intervention being provided.
Another cost factor that had a big impact upon this Phase of the study was that using replacement staff to allow permanent staff to attend educational sessions was not considered a priority within the Trust. Clinical managers found the time to attend the conference, but it went unremarked how few nurses were able to attend. Assumptions were made that they were just not interested in the topic. Overall the unestablished position of the new managers gave weak support to this initiative and emphasised the real lack of focus on cohesive strategies linking practice development with education and fulfilling clinical governance responsibilities below the level of senior management, which in turn reflected on the qualities of leadership within the whole Trust (Garside 1998, Muir Gray 1997).

Staff were likely to be at various stages of acceptance of new practice at any one time (Rogers and Shoemaker 1971), however the majority of staff (excluding the NVEs who did not attend any sessions) attended one or two sessions, and a core of staff (17% of the RGNs and 12% of district nurses) were interested enough to attend three or four (all) educational sessions. However, some nurses needed to be actively sought for inclusion and information-giving in the implementation of clinical guidelines where they had not attended education sessions 1-3. (Figure 8.1). 10% of nurses were contacted and visited to introduce the guidelines to them at their work bases and to encourage them to participate by presenting the personal aspects and advantages of new approaches needed to be introduced; this was another beneficial strategy (Abbott and Hotchkiss 2001).
In comparison with the responses from nurses at Phase One, where 70% of nurses had expressed interest in taking the opportunity to undertake education to improve their knowledge about continence, this did not easily translate into action during Phase Two. Whilst 80% of all nurses attended at least one session, (21) 43% of health visitors and (7) 11% of district nurses and NVEs did not attend any training prior to the introduction of clinical guidelines, despite targeted activity. However, the large majority of all nurses attended one or two events and 12% of district nurses and 17% of RGNs attended three or four events. These attendance figures do however match the types of adopters of innovation identified by Rogers and Shoemaker (1971), where different groups exhibit varying levels of acceptance and interest in adopting new practices. Some readily become involved, others are late adopters/ laggard and all stages in between, so that at any one time a group is likely to have
representatives of each stage with regard to the acceptance of change. This discussion continues in Chapter Ten section 10.6.
Chapter Nine

Phase Three: Evaluation

9.1 Introduction

Two elements contributed to the Evaluation Phase (Phase Three) of the study (see Table 4.1 Chapter Four Section 4.1):

- A repeat community nurse questionnaire
- A document survey of continence assessment documents.

The findings from each of these methods are presented here, and are then discussed in the next chapter with comparisons between the implementation and control groups and then compared to the findings at Phase One.

The outcome measures that were examined were those identified by Carr and Kemmis (1986) as outcomes for action research in general: a change in actual practice, understanding of practice and the situation in which practice takes place.

Specific outcomes drew upon those identified as Performance Indicators for continence care in the NHS (Brocklehurst et al 1999), related to:

- Change in documented practice.
- Change in level of knowledge
- Change in attitude to elderly people and continence care.
9.2 Method

*Questionnaire*

A questionnaire the same as that used at Phase One except with the addition of two questions, was sent once more to all the community nurses within the Trust, in both implementation and control groups (see Appendix C). This occurred in September 1999, after the completion of Phase Two of the study and when the implementation group had used the clinical guidelines for four months. Questions about involvement in clinical guideline/policy development or audit were replaced by two other questions, one asking whether in the last year the nurses’ practice had been influenced to change. The second new question asked if so, what had influenced that change.

When all responses to the nurse questionnaire were received, the clinical guidelines were introduced to the community nurses within the control group by the continence advisers, who then continued to support their use in both implementation and control groups. Copies of the guidelines were available within the control group for each nurse base and each Clinical Service Manager held a copy, which was the customary practice within the Trust for policy documents.

*Document Survey*

A document survey took place in January 2000, four months following the nurse questionnaire and examined the use of new assessment documentation across the whole Trust. A comparison of continence assessment documents was made at Phase Three and compared with the findings at Phase One. Criteria used in both sets of
documentation were compared, although a direct comparison of assessment documents was not possible, as at Phase Two, new assessment documentation had been developed as part of the clinical guideline strategy. However, the same criteria were compared between Phases and the same criteria were compared between the implementation and control groups of nurses after the guidelines had been in place for eight months altogether.

New assessment documentation developed and introduced at Phase Two of the study was in two parts: a patient questionnaire asking about signs, symptoms and feelings about continence problems, medical, obstetric and continence history. The patient was asked to complete a fluid intake/output chart over several days (five if possible), where all drinks, wet episodes, urine output and pad changes could be recorded. The second part was a nurse assessment document (see Appendix B), where details of a physical examination, including urine testing, and a synopsis of the patient’s underlying condition might identify the causes, contributory factors and type of incontinence, as well as possible treatments and further investigations could all be recorded.

9.3 Questionnaire Findings

There were 173 questionnaire responses at Phase Three, achieving a response rate of 71%. One staff member had not included a locality and four staff members were new within the implementation localities and had not received any clinical guideline training, so these questionnaires were not included in the analysis, leaving 168
responses to be analysed (69%). Table 9.1 shows the distribution of analysed responses and compares them with those at Phase One.

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Implementation group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase One n=50</td>
<td>Phase Three n=77</td>
</tr>
<tr>
<td>District Nurse</td>
<td>26 (26%)</td>
<td>35 (21%)</td>
</tr>
<tr>
<td>Health Visitor</td>
<td>21 (21%)</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Nurse Visitor for the Elderly</td>
<td>3 (3%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>RGN</td>
<td>_</td>
<td>17 (10%)</td>
</tr>
</tbody>
</table>

Table 9.1 Distribution of responses from all nurse groups to questionnaires at Phases One and Three.

An increased response rate indicated more co-operation from the community nurses at Phase Three. A more representative picture of the demography of the population of community nurses in the trust was obtained, as there were more respondents and all nurse roles were well-represented. Possible reasons for the improved response at Phase Three may be due to the high profile that the subject of continence care had achieved over time in the implementation group, and in the control group, the proposal to introduce guidelines there following the questionnaire. Personal reminders from the researcher also helped to achieve an improved level of response. The questionnaire was divided into three sections: section one: biography and education, section two: nurses’ knowledge and section three: nurse attitudes. In presenting results here, sections two and three are combined.

9.3.1 Section One: Biography

This section (questions 1-5) of the questionnaire asked the nurses to identify their role, locality, full-time or part-time working pattern, and length of time since
undertaking RGN and community qualifications. The sample of nurses who responded at Phase Three was from the same population within one community health trust as those who responded at Phase One. Biographical detail at Phase Three showed that the samples were equivalent in the majority of aspects. Where there were differences, these were owing to more district nurses and in particular more RGNs responding at Phase Three. At both Phases there was an even distribution of responses across the locations and district nurses remained the bigger group, whilst a smaller proportion of health visitors responded at Phase Three. Changes in numbers of respondents occurred evenly across both implementation and control groups. At both Phases more part time staff responded (Table 1, Appendix H), but the proportion was greater at Phase Three, indicating that a high proportion of part time staff were employed in the health trust.

The nurses had received their RGN training an average of 26-30 years ago at Phase One and 21-25 years ago at Phase Three (Table 2, Appendix H) This difference in pattern is attributed to the group of RGNs at Phase Three who had trained more recently than the other nurse groups, followed in order by the district nurses, the health visitors and the oldest group were the nurse visitors for the elderly with a median of twenty-five years. The respondents were generally an older workforce. The median number of years for receiving a community qualification was ten for the district nurses and fifteen for the health visitors (Table 3, Appendix H), suggesting that district nurses received their qualification later in their careers. Differences in responses later in the questionnaire were found between the nurse groups and between full-time and part-time staff and are reported in the following section.
9.3.2 Section One: Education

Nearly all community nurses had taken part in continence training (97%). About one quarter of the nurses reported continence education during RGN training (23%) (Table 4, Appendix H) and about a third during their community qualification (35%) (Table 5, Appendix H). Much higher percentages of the nurses consistently reported receiving in-service continence education from the continence advisers (82%) (Table 6, Appendix H), which was identified as the main source of education for community nurses, although some of this training was related to continence products rather than continence promotion, as had been reported at Phase One (22%). In-service training, likely to be the most recent, may have been recalled better than during periods of nurse training received in many cases many years earlier.

Post-registration ENB courses in the Promotion of Continence and Care of the Elderly had been undertaken by fewer than 10% of the staff (Tables 7 and 8, Appendix H). More district nurses than other nurse groups, reported attending all the continence care training. Part-time nurses were equally well represented among all reported training. The community nurses identified a variety of other post-registration sources of continence education, although fewer were identified at Phase Three. It is notable that link nurses sessions were not identified (Table 9, Appendix H). The reason for this was probably that the continence advisers had suspended regular link nurse sessions during the period between Phases (one year), as this was a period of intensive activity managing the health authority review of continence services.
Additional questions at Phase Three asked the nurses whether they had received training in the last year and if they had been influenced to change their practice. They were also asked to identify/list what had influenced them. 69% of nurses in the implementation group and 3% of nurses in the control group had received training in the previous year (Table 9.2). More district nurses than the other nurse groups reported receiving training and being influenced to change their continence care practice.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Implementation Group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Training in last year</td>
<td>Influenced to change</td>
</tr>
<tr>
<td>District nurse</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Health visitor</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Nurse visitor – elderly</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>RGN</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>53 (69%)</td>
<td>52 (68%)</td>
</tr>
</tbody>
</table>

Table 9.2 Numbers of nurses who had received continence training during the previous year and whether they were influenced to change their practice.

More nurses in the implementation group were expected to have undergone training at Phase Three and this was found to be the case. The implementation group had been the target of continence training over the previous year as part of the guideline implementation strategy at Phase Two. 69% (53/77) reported attending training, a figure similar to the attendance figures that recorded 71% (99/140) attendance (Chapter 8 Figure 8.1 section 8.5).
Significantly more nurses in the implementation group reported that they were influenced to change their practice (68%) than those in the control group (43%) (chi-squared P= 0.006). Most of those who reported being influenced to change their practice were district nurses. Reasons that influenced change in nurses’ practice varied (Table 9.3) and some reasons could be considered more positive than others.

<table>
<thead>
<tr>
<th></th>
<th>Implementation group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DN</td>
<td>HV</td>
</tr>
<tr>
<td>Clinical guidelines</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Education sessions &amp; guidelines</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Cost of continence products &amp; guidelines</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Gained more knowledge</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Continece advisers &amp; clinical guidelines</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Education sessions</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>General practitioners</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Link nurses</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Continence advisers</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Use of Colley model</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>New job</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td><strong>(68%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(43%)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9.3: Influences upon change in continence care practice

The reasons for change in practice fell into four categories, although there was some overlap between categories:

- **Clinical guidelines**: provided the main influence upon practice change. 18 nurses listed this (35%), 14 of whom were district nurses. A further 4 nurses reported their source of influence was clinical guidelines combined with influence by the continence advisers so combining the amount of influence to
22/52 (42%). 9/52 nurses reported being influenced by guidelines in combination with education, which increased the effect of clinical guidelines to 60%.

- **Education/training**: described as educational sessions (4/52) and knowledge gain (6/52); these reasons for change affected 10/52 nurses (19%). However, in combination with clinical guidelines, educational sessions seemed to be more influential (13/52 = 25%) in the implementation group. However, 7/39 nurses in the control group (18%) also identified knowledge gain in the previous year as an influence upon practice, although they had not attended any educational sessions.

- **Administration and management of the continence supplies**: The cost of continence products and the availability of supplies was given as the major influence upon practice in the control group (22/39 56%), especially among district nurses (15/29), but less so among all nurses in the implementation group (9/52 17%). This aspect appears to have been a source of some frustration for nurses, as policy limiting product availability to patients had been imposed (see chapter 6, Section 6.2.5 Interview 6). Therefore this reason could be considered as quite a negative influence upon change in practice for the nurses.

- **Influence of healthcare professionals**: was reported least by all the nurses as a sole influence upon practice change, including GPs, link nurses and the continence advisers. Five nurses in the control group and two in the
implementation group indicating other professionals as an influence upon practice change. In combination with clinical guidelines, continence advisers were an influence for four nurses.

Clinical guidelines were a significant influence upon changing practice among the implementation group of nurses. There was a significant difference in the proportion of nurses in the implementation group who were influenced by positive factors to change their practice during the previous year (62%), than in the control group (17%) (chi-squared $p=0.001$). All influences that included clinical guidelines alone or in combination with either education sessions or the influence of the continence advisers, influenced practice change in 31/52 nurses in the implementation group (60%). However, by themselves, education sessions, knowledge gain or continence advisers were far less influential.

The remaining questions that the nurses were asked were whether they felt they had received adequate preparation for their role in caring for people who experience urinary continence problems and whether they had adequate knowledge to effectively care for patients with urinary continence problems. Their responses are shown in Table 9.4.

More nurses felt they had received adequate preparation for their role in the care of people with urinary incontinence at both Phase One (64%) and Phase Three (55%). However, the proportion of nurses who held this opinion dropped between phases, more so in the implementation group (from 70% to 53%), compared with the control group (from 60% to 56%), although this was not statistically significant. A
corresponding increase in those who felt inadequately prepared for their role occurred in each group.

There are several possible reasons for this change in level of confidence within their role for community nurses to provide continence care. Within the implementation group the nurses may have become more aware of deficiencies in their ability to provide an effective role in assessment for patients after the introduction of clinical guidelines, which expected them to play a more dynamic role than they were accustomed to provide previously. Within the control group, there had been a period of about a year when the continence advisers had not provided link nurse meetings or other training, which may have had an impact upon reducing confidence among this group of nurses.

<table>
<thead>
<tr>
<th>Adequate preparation for role</th>
<th>Implementation group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase One</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32 (70%)</td>
<td>31 (60%)</td>
<td>63 (64%)</td>
</tr>
<tr>
<td>No</td>
<td>14 (30%)</td>
<td>19 (37%)</td>
<td>33 (34%)</td>
</tr>
<tr>
<td>Phase Three</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>41 (53%)</td>
<td>49 (56%)</td>
<td>90 (55%)</td>
</tr>
<tr>
<td>No</td>
<td>35 (46%)</td>
<td>38 (44%)</td>
<td>73 (45%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adequate knowledge</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase One</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19 (38%)</td>
<td>24 (46%)</td>
<td>43 (42%)</td>
</tr>
<tr>
<td>No</td>
<td>31 (62%)</td>
<td>28 (54%)</td>
<td>59 (58%)</td>
</tr>
<tr>
<td>Phase Three</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>38 (49%)</td>
<td>38 (42%)</td>
<td>76 (45%)</td>
</tr>
<tr>
<td>No</td>
<td>39 (51%)</td>
<td>53 (58%)</td>
<td>92 (55%)</td>
</tr>
</tbody>
</table>

Table 9.4 Nurses’ opinion about the adequacy of their preparation for their role in caring for people with urinary incontinence and knowledge to care for patients effectively.
The majority of nurses at each phase felt they did not have adequate knowledge to care for patients effectively (58%/ 55%). There was however a small increase in numbers of nurses who replied that they had more adequate knowledge, found in the implementation group at Phase Three (49% from 38% at Phase One) and fewer who felt they had inadequate knowledge (62%) than they had at Phase One (51%), whereas in the control group, the proportion of nurses who felt they had inadequate knowledge increased between phases from 54% to 58%. However, no findings were statistically significant. Overall there was some positive change in the views of nurses in the implementation group about their knowledge of continence care, but they felt less prepared for their role in continence care. This finding was evenly distributed across all nurse roles.

There was one important difference between nurses working full-time and part-time. At Phase One those working part-time felt significantly less prepared for their role (chi-squared p = 0.037) than full-time staff, whilst no differences were found in the data between each group in their views about the adequacy of their knowledge. However, at Phase Three there was no significant difference between full time and part time staff, or across all nurse roles in feeling prepared for their role. One explanation for this shift in confidence among part time staff may be accounted for in the attendance figure for all educational interventions at Phase Two, where part-time staff were well-represented at all of them. The interventions had been deliberately tailored to the working patterns of the staff.
9.3.3 Sections Two and Three: Nurses’ Knowledge and Attitudes

Comparisons between knowledge and attitude findings at Phases One and Three were made by constructing a combined score, based on the individual components of each answer to questions in the knowledge and attitude questionnaire a combined score, based on the individual components of each answer to questions in the knowledge and attitude questionnaire (questions 1-10, Vignette responses and attitude statements). Components that contributed to the score for each answer are shown in Tables 1-8 in Appendix J.

<table>
<thead>
<tr>
<th></th>
<th>Phase One</th>
<th>Phase Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>81.7</td>
<td>79.9</td>
</tr>
<tr>
<td>Mode score</td>
<td>69</td>
<td>76</td>
</tr>
<tr>
<td>Minimum score</td>
<td>53</td>
<td>54</td>
</tr>
<tr>
<td>Maximum score</td>
<td>131</td>
<td>129</td>
</tr>
<tr>
<td>Total possible score</td>
<td>223</td>
<td>223</td>
</tr>
</tbody>
</table>

**Table: 9.5 Comparison of combined knowledge/attitude scores at Phases One and Three**

Results in Table 9.5 indicate that knowledge/attitude scores achieved at both phases of the study were low. Whilst the majority of respondents reported the major causes associated with stress incontinence, obstructive and transient causes, this was not in large numbers (Table 1 and 4 Appendix H). Whilst a possible total combined score for knowledge and attitudes was 223, the maximum individual score was 131, and a mean score of 81.7/79.9 suggesting a low level of knowledge which did not alter between phases of the study; indeed, many of the Phase Three responses from both
groups identified similar knowledge or even less (Table 1 Appendix H). Mean scores in the implementation and control groups between Phase One and Three also indicated that there was no statistically significant change in the level of knowledge between phases in the implementation group (Table 9.6). Within the control group the mean knowledge/attitude score was significantly less at Phase Three. One possible conclusion from this finding is that the nurses might have taken less trouble to complete the repeat questionnaire than they had the earlier one. This is illustrated by significantly fewer responses in the knowledge questionnaire that identified pelvic floor muscle weakness as a cause of urinary incontinence less at Phase Three (21%) (p=0.008) than at Phase One (67%).

<table>
<thead>
<tr>
<th></th>
<th>Phase One</th>
<th>Phase Three</th>
<th>T-Test for Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation group</td>
<td>80.5</td>
<td>81.8</td>
<td>NSD</td>
</tr>
<tr>
<td>Control group</td>
<td>82.8</td>
<td>78.3</td>
<td>0.044</td>
</tr>
<tr>
<td>T-test for significance</td>
<td>NSD</td>
<td>NSD</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.6: Mean knowledge/attitude scores for the implementation and control groups

Statistically significant differences in improved knowledge were found in one area of knowledge, in responses to two vignettes by the implementation group, both between Phases One and Three and from the control group (Tables 6 and 7, Appendix J). These related to Vignettes Two (Chi-squared= 0.070), and Vignette Three (Chi-squared=0.028), relating to assessment and treatment for overactive bladder and assessment criteria for prostatic obstruction. The vignettes seemed to produce some
evidence of change in the knowledge base of the nurses in the implementation group, perhaps because the vignettes more realistically represent practice and therefore knowledge applied to practice.

Overall in the vignettes, more correct responses were consistently found among the implementation group compared to the control group and compared to other parts of the knowledge questionnaire. In all the vignettes the implementation group included more aspects of patient assessment, notably urine testing and physical examination of patients, identified knowledge of overactive bladder and its treatment and appropriate referral to other healthcare professionals. In all vignette responses in the implementation group the provision of pads was mentioned fewer times at Phase Three and this finding was statistically significant in all three vignettes (Tables 5-7, Appendix J).

Nurses’ attitudes were included in the combined score reported above (Tables 9.5 and 9.6) and did not significantly change between phases. However, for the individual statements there was one significant difference in the views of the nurses between Phases One and Three and it was found in the implementation group. T-tests upon the scores for individual statements and for the accumulated total score for each group between phases (Table 8, Appendix J) showed a significant difference in one response and a marginal change in one other. A positive statistically significant change occurred so that fewer nurses in the implementation group regarded two-hourly toileting and providing incontinence aids as the only realistic way to promote continence in elderly people (p = 0.017) at Phase Three than at Phase One and also
compared to the control group at Phase Three ($p = 0.041$). The mean score change was from 4.1-4.5. A marginal shift in view was found for the opinion that incontinence is an inevitable part of ageing. Mean score shift was 4.3-4.6 in responses of the implementation group, compared to the control group at Phase Three, although the improvement just failed to reach significance ($p= 0.057$). In general there were no large-scale statistically significant changes in the attitudes of the nurses over the period between Phases One and Three of this study. However, the changes that were noted were nevertheless quite encouraging when examined alongside other results from the study. See Sections 9.4 and 8.2.4.

9.3.4 Summary of Questionnaire Findings

There were more respondents to the nurse questionnaire at Phase Three, with all nurse roles were well-represented, district nurses as the biggest group and a majority of part time staff. The respondents were generally an older workforce. High percentages of the nurses reported receiving in-service continence education from the continence advisers as their main source of education and training, although some of this training was related to continence products rather than continence promotion. Post-registration ENB courses in the Promotion of Continence and Care of the Elderly had been undertaken by fewer than 10% of the staff.

In the implementation group, 62% of nurses reported that they were influenced to change their practice after receiving training in continence care at Phase Two. Most of these were influenced by clinical guidelines alone (35%) or in combination with
education strategies (19%) or combined with influence from the continence advisers (8%) and could be considered as positive influences. On the other hand, both groups were influenced in their practice by costs and availability of continence products (rationing), which could be considered to be negative influences upon care provision. However, this affected the control group (56%) more than the implementation group (17%). The control group reported few positive influences.

The district nurses reported most influences to change their practice, which reinforces the perception that the district nurses were the nurse group most closely involved in the provision of continence care within the health trust; and they had attended more training.

The majority of nurses, across all professional roles, at both phases and in each group felt that they did not have adequate knowledge to care for people with urinary incontinence. They did however feel that they had received adequate preparation for their role in continence care at Phase Three, although less so than at Phase One in the implementation group. An exception to this was among nurses who worked part-time, who felt significantly less prepared for their role at Phase One, but improved at Phase Three. One reason for this may have been that part-time staff were especially well represented at the implementation group training, which may have contributed to the improvement in their opinion at Phase Three.

A combined score for knowledge and attitudes in the nurse questionnaire was low at both phases of the study, with no statistically significant change in the level of knowledge between phases in the implementation group and deterioration in score.
within the control group between phases of the study. One conclusion is that the nurses might have taken less trouble to complete the repeat questionnaire.

One part of the knowledge/attitude questionnaire where statistically significant differences in improved knowledge were found was in responses to two vignettes by the implementation group. The implementation group included more aspects of patient assessment, notably urine testing and physical examination of patients, identified knowledge of overactive bladder and its treatment and appropriate referral to other healthcare professionals. In all vignette responses in the implementation group the provision of pads was mentioned fewer times at Phase Three and this finding was statistically significant in two vignettes. Vignettes may more realistically represent practice in a questionnaire and therefore draw out knowledge applied to practice more readily.

One significant difference in the views of the nurses was found. Fewer nurses in the implementation group regarded two-hourly toileting and providing incontinence aids as the only realistic way to promote continence in elderly people. A marginal shift in view was found for the opinion that incontinence is an inevitable part of ageing.

**9.4 Results of Documentary Survey**

At the end of Phase Three, all new patient assessments that had occurred over two months using the new documentation (n=109), were compared with the audit of continence assessments made at Phase one (n=41) (see Table 9.24). The increase in the number of assessments occurred because all patients who required three-monthly
reassessment were included in the new assessment process. Assessments carried out by the group of nurses in the implementation group, who had been involved in the guideline development and its associated education strategies and those nurses who had acted as the control group at Phases One and Three were also compared with each other.
<table>
<thead>
<tr>
<th>Assessment criteria</th>
<th>Phase One</th>
<th>Phase Three Control group</th>
<th>Phase Three Implementation group</th>
<th>p values between Phases One and Three where significant</th>
<th>p values between Implementation and Control groups where significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=41 %</td>
<td>n=55 %</td>
<td>n= 54 %</td>
<td>Control group</td>
<td>Implementation group</td>
</tr>
<tr>
<td>Type of incontinence</td>
<td>34 83%</td>
<td>26 47%</td>
<td>45 83%</td>
<td>0.001 neg</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>34 83%</td>
<td>39 71%</td>
<td>49 91%</td>
<td>0.010 0.005</td>
<td></td>
</tr>
<tr>
<td>Bowels</td>
<td>29 71%</td>
<td>50 91%</td>
<td>50 93%</td>
<td>0.021 0.002</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>24 57%</td>
<td>43 78%</td>
<td>46 85%</td>
<td>0.011 0.001</td>
<td></td>
</tr>
<tr>
<td>Other illnesses</td>
<td>29 69%</td>
<td>49 89%</td>
<td>52 96%</td>
<td>0.038</td>
<td></td>
</tr>
<tr>
<td>Fluid intake</td>
<td>23 55%</td>
<td>38 69%</td>
<td>40 74%</td>
<td>0.001 0.001</td>
<td></td>
</tr>
<tr>
<td>Abdominal/urological surgery</td>
<td>20 48%</td>
<td>43 78%</td>
<td>48 89%</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>Toileting times</td>
<td>22 52%</td>
<td>36 66%</td>
<td>44 82%</td>
<td>0.058 (marginal)</td>
<td></td>
</tr>
<tr>
<td>Times changed pad</td>
<td>19 45%</td>
<td>2 4%</td>
<td>6 11%</td>
<td>0.000 neg</td>
<td>0.000 neg</td>
</tr>
<tr>
<td>Times incontinent</td>
<td>21 50%</td>
<td>26 47%</td>
<td>36 67%</td>
<td>0.079</td>
<td>0.041</td>
</tr>
<tr>
<td>Urine test</td>
<td>8 19%</td>
<td>23 42%</td>
<td>27 50%</td>
<td>0.001 0.001</td>
<td></td>
</tr>
<tr>
<td>MSU</td>
<td>1 2%</td>
<td>15 28%</td>
<td>27 50%</td>
<td>0.000 0.000</td>
<td></td>
</tr>
<tr>
<td>Infection detected</td>
<td>0 0</td>
<td>4 8%</td>
<td>8 13%</td>
<td>0.017</td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>7 17%</td>
<td>20 36%</td>
<td>26 48%</td>
<td>0.018</td>
<td>0.001</td>
</tr>
<tr>
<td>Physical observation of skin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical examination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cause identified</td>
<td>3 6%</td>
<td>24 44%</td>
<td>43 80%</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.7: Findings of document survey at Phases One and Three
Substantial improvements in recording assessment criteria were found in both the implementation and control groups at Phase Three. The implementation group recorded higher percentages in twelve out of the fourteen assessment criteria at Phase Three than for those recorded at Phase One. In eleven of these criteria, the differences were statistically significant. The control group recorded ten out of fourteen assessment criteria more at Phase Three than at Phase One and for seven criteria the difference was statistically significant. The extent of the improvement was therefore greater in the implementation group compared to the control group.

Improvements in the control group between Phase One and Three were as follows: Two criteria involved assessment of urine: urine testing (42% instead of 19%, p=0.010) and taking an MSU (28%, 2%, p= 0.000), two involved patient history: accounting for any surgery (78%/48% p= 0.001) and illnesses (89% 69% p=0.011), two were contributory factors: bowel habit/problems (91%/71% p= 0.010) and medication used (78%/57% p=0.021) and the last was treatments undertaken (36%/17% p= 0.018). Four of these criteria appeared in the patient questionnaire and three in the nurse assessment document. The remaining positive findings included features of the patient’s intake/output chart: fluid intake (69%/55%) and toileting times (66%/52%) and the recording of the detection of urine infection at assessment (8%/0%).

The remaining criteria were recorded less often in the control group at Phase Three than at Phase One. Two criteria were recorded significantly fewer times. These were identifying the type of incontinence (83%/47%, p=0.001) and recording the times that changing pads took place (45%/ 4%, p= 0.000). The latter was an instruction for
the patient when completing the fluid chart and the former occurred in the nurse assessment document as part of the summary of information about symptoms provided by the patient. Others included environmental factors (83%/71%) and the number of times incontinence occurred (50%/47%).

The implementation group performed better than the control group and higher percentages in twelve out of the fourteen assessment criteria at Phase Three were recorded than for those recorded at Phase One. In eleven of these criteria, the differences were statistically significant. For those that were not, environmental factors was slightly higher (83%, 91%), in another, types of incontinence, the group recorded the same high percentage as at Phase One (83%) and in the remaining criterion: pad changes, the recording was significantly lower than at Phase One (11%, p= 0.000), similar to the control group, but without significance between the groups at Phase Three. The implications for this factor recording lower levels at Phase Three may indicate that inadequate explanation was given on the form or provided by the nurses about the fluid intake/output chart for patients to record this information appropriately. It was a new criterion for many of the patients and nurses to use.

The important factor highlighted by comparisons between the groups at Phase Three showed that the implementation group recorded higher percentages in recording all of the sixteen criteria measured at Phase Three than the control group. With the exception of one criterion, where the same percentage was recorded, in six of the criteria the differences were statistically significant: types of incontinence were recorded in 83% in the implementation group versus 47% in the control group.
(p=0.000), environmental factors were recorded in 91% versus 71% (p= 0.009), physical observations of the patient were recorded in 52% versus 22% (p=0.001), MSU were recorded in 50% versus 28% (P=0.018), cause was identified in 80% versus 44% (p=0.000) and on the fluid intake /output chart, number of times the patient was incontinent were recorded 67% versus 47% (p= 0.041). In one further criterion, recording the number of times the patient used the toilet, the difference just failed to reach statistical significance (82% versus 66%, p=0.058). The criterion that recorded the same percentage response, was whether the patient had received a physical examination of vulva and vagina in women or rectal examination of the prostate gland in men. The recordings were low (6%) in both groups. This was a new criterion in patient assessment documents and had not been among the criteria at Phase One.

Significant improvements occurred in the documentation and performance of all continence assessments in both groups between Phase One and Three of the study. The key indicators were:

- History- taking activities in the form of recording surgical and medical history of the patient, noting their medication and bowel function.
- Aspects of physical assessment by the nurses through urine testing or taking an MSU and physical observation of skin.
- Recording treatments or management strategies (excluding use of absorbent pads).
However, in the implementation group the results showed a greater statistically
significant difference in all of these criteria, compared to the control group. There
were also significant differences between the groups in six criteria:

- Identifying the type of incontinence
- Environmental factors
- Making physical observations
- Taking an MSU
- Recording incontinent episodes
- Identifying causes of incontinence

Further criteria were responded to more thoroughly and with statistical
significance at Phase Three in the implementation group, but not in the
control group, for the following criteria:

- History-taking- the intake/output charts were more detailed in fluid intake,
  recording of toileting times and the timing of incontinent episodes.
- Where the presence of infection was detected on urine testing or via MSU,
  this was recorded.

Differences between Phase One and Three in both implementation and control
groups can be attributed to several factors. The major difference for the nurses was
that they had access to improved assessment documentation which provided trigger
questions to guide the assessment, plenty of space for comments and was in two
parts: one for the patient and one for the nurse to complete. The documents were
supported by written guidelines and, following their introduction, ongoing support from the continence advisers.

In carrying out their assessments, the nurses were able to draw upon a variety of sources of information to help their clinical judgement. The nurse assessment began by checking the patients’ information, helping where necessary to complete the patient questionnaire and then adding more information from their own examination. This novel factor, that patients themselves became involved in documenting their experience of the problem, prior to an assessment by the nurse, was valuable in the assessment in the opinion of nurses and for the improved quality of information patients and their carers could provide (see Chapter 8 Section 8.5). In examining the fluid intake/output charts that patients, their helpers or relatives filled in, along with sometimes detailed accounts of the problem, it was plain to see that many people, some of whom were very elderly, had made a considerable effort to provide the information requested.

Differences between results for the implementation group and control group at Phase Three could be attributed to the enhanced preparation of the group through educational interventions and their involvement in the development and introduction of clinical guidelines.

The working environment in which the clinical guidelines were introduced was an important factor for their sustainability. Although working systems had not altered in the sense of becoming more focused upon offering practice education (a more learning culture), existing systems provided augmented support for the nurses during
the period up to and immediately following this document survey. Improved information within the guidelines had connected the community nurses with multi-disciplinary systems, such as the urology nurse adviser and physiotherapy. The most vital support was received from the continence advisers, who were sent copies of each assessment document, checked upon the content and were in a position to reinforce thorough practice and offer advice on treatment and management.

9.5 Summary of Results of Phase Three

Two elements contributed to the Evaluation Phase of the study: a repeat community nurse questionnaire to all community nurses and a document survey of continence assessment documents. These findings were compared to those from Phase One.

As at Phase One, nearly all community nurses had taken part in continence training mainly receiving in-service continence education from the continence advisers (82%), which was identified as the main source of education for community nurses.

In the implementation group, 62% of nurses were influenced to change their practice after receiving training in continence care provided during Phase Two of the study, whilst nurses in the control group were more influenced by costs and availability of continence products (rationing). More district nurses than other nurse groups reported most influences to change their practice, which reinforces the perception that the district nurses were the nurse group most closely involved in the provision of continence care within the Trust and most likely to attend continence care training.
The majority of nurses, across all professional roles, at both Phases One and Three and in the implementation and control groups felt that they did not have adequate knowledge to care for people with urinary incontinence. They did however feel that they had received adequate preparation for their role in continence care at Phase Three, although less so than at Phase One in the implementation group.

There were a small number of statistically significant differences in improved knowledge and attitude between Phase One and Three in the implementation group; knowledge of physiology of the bladder, causes and treatments of UI and assessment criteria improved, with less reliance upon absorbent pads as a management solution. Most noticeable was that knowledge about causes, assessment and treatment of overactive bladder were better appreciated in the implementation group at Phase Three. Most differences were concentrated in the responses to the vignettes. The vignettes seemed to produce the most consistent evidence of change in the knowledge base of the nurses in the implementation group, perhaps because the vignettes more realistically represent practice and therefore knowledge applied to practice. There was one significant difference in the attitudes of the nurses between Phases One and Three and it was found in the implementation group. A positive shift in view occurred so that fewer nurses regarded two-hourly toileting and providing incontinence aids as the only realistic way to promote continence in elderly people.

However, a combined knowledge/attitude score did not change significantly between phases of the study and there were no large-scale statistically significant changes in the knowledge or attitudes of the nurses over the period between Phases One and Three of this study, indeed, many of the Phase Three responses from both
implementation and control groups identified similar knowledge or even less. One possible conclusion is that the nurses might have taken less trouble to complete the repeat questionnaire than they had the earlier one. The changes in knowledge/attitudes that were noted were nevertheless quite encouraging when examined alongside other results.

At the end of Phase Three, all new patient assessments that had occurred over two months using the new documentation were compared with the audit of continence assessments made at Phase One. Assessments carried out by the group of nurses in the implementation group, who had been involved in the guideline development and its associated education strategies and those nurses who had acted as the control group at Phases One and Three were also compared with each other.

Significant improvements occurred in the documentation and performance of all continence assessments in both groups between Phase One and Three of the study, but the extent of the improvement was greater in the implementation group compared to the control group. The implementation group recorded higher percentages in recording all of the sixteen criteria measured at Phase Three than the control group and produced higher percentages in twelve out of the fourteen assessment criteria at Phase Three compared to those recorded at Phase One. In eleven of these criteria, the differences were statistically significant.

Differences between Phase One and Three in both implementation and control groups can be attributed to several factors. The major difference for the nurses was that they had access to improved assessment documentation supported by written
guidelines. Moreover, as patients themselves became involved in documenting their experience of their UI problem, improved quality of information was made available for the assessment. The working environment in which the clinical guidelines were introduced was an important factor for their sustainability. Whilst continence advisers provided ongoing support and reinforcement of the new standard of care among both implementation and control groups, the implementation group, for whom deliberate educational strategies were used, carried out more effective documented assessments for patients. Differences between results for the implementation group and control group at Phase Three could be attributed to the enhanced preparation of the group through educational interventions and their involvement in the development and introduction of clinical guidelines.
Chapter Ten

Discussion of the Findings from all Phases of the Research

10.1 Introduction

The findings from Phase Three are discussed here and compared to those from Phases One and Two in relation to the overall aims and objectives for the whole study. Outcome measures are compared pre and post implementation of clinical guidelines for the promotion of continence, introduced in Phase Two to the implementation group of community nurses. A control group provided a comparator to take account of the influence of any additional Trust-wide influences. Both groups demonstrated similar characteristics at Phase One of the study. The implementation group was offered a series of educational interventions to support them throughout the process of change in adopting the guidelines (Phase Two). Changes in the knowledge, attitudes and practice of community nurses occurred in the implementation group associated with a range of educational interventions and guideline implementation. Changes in the practice of nurses in the control group also occurred in response to using clinical guidelines, but with no comparable move towards more rehabilitative attitudes towards elderly people; attitude being the main influence upon behaviour (Moulding et al 1999). These findings are discussed below and the implications for continence services are debated. A critical analysis of the strengths and limitations of the study is presented.
10.2 Methodological Issues

The driver for this study originated in the need to identify effective methods of implementing evidence of proven benefit to patients across multiple health service settings and closing the gap between research and practice (Redfern et al 2000, McLaren et al 2002). Using consistent quasi-experimental designs for each of the studies in STEP enabled an independent comparison evaluation to be made and intended to provide firm evidence of outcomes. Rigour provided by either control or randomisation of participants offers clarity to the explanations for any change following an intervention (the manipulated variable). However, sampling to avoid bias and the risk of “contamination”, where the control group inadvertently become exposed to the intervention are critical factors. Situational analyses from some STEP studies identified that comparison (control groups) were unavailable or in one case were lost to the study under pressure of time (Doherty et al 2000). Quasi-experimental design, operating independent of context was considered too inflexible for the wide variety of practice settings studied; there was a need to address context-specific issues (culture, leadership, proactive quality measures of the organisation) or supporting facilitation of interventions (Perry 2002, Heath et al 2001). Some account was taken in the overarching design of STEP studies of the dynamics and complexity of change processes within NHS organisations; by the employment of the researchers as active change agents/opinion leaders; by project management education; and through close association between academic and health service managers to facilitate the studies. Five studies, including this study, evolved more collaborative action research approaches to manage change more effectively.
The implementation and control group were geographically, structurally and administratively separate; although matched by ratio of workforce to the elderly population and urban/rural designation, otherwise applying design controls in such a study, for a large group of people (244) was a considerable challenge. It was necessary to restrict information about the study design to senior managers and to the continence advisers, whose actions on several occasions nevertheless posed a threat to the integrity of the study. In particular there was pressure to disseminate and implement clinical guidelines across the whole Trust before evaluation took place at Phase Three. Restriction of the interventions to part of the Trust also required care in the management of information dissemination and reduced opportunities for education and collaboration with physiotherapists running clinics, as they were based in the control localities.

The period of time selected before evaluation of the effects of the interventions in the study was largely governed by the time-frame of the larger STEP research project. The aim was to measure effects after at least six months to avoid criticisms of measuring only short-term effects, which may not be sustained. Other evaluation studies have reported a variety of time scales, from a few weeks up to several months with sustained effect of the intervention (Williams et al 1995, Roe et al 1996, Button et al 1998, NHSCRD 1999). Even longer periods before evaluation would seem to be better equipped to discover whether change is further sustained, but the STEP studies evaluated at the longest period among comparable studies. However, problems can arise from the effect of history (Campbell and Stanley 1966, Black 1999), whereby the longer the interval between the intervention and evaluation, the more influence is possible from other extraneous factors (detectable when a control group is used) or,
for instance that without reinforcement, the effect of the intervention is lost and knowledge could fade. Although interventions in this study were staged over a year in order to maintain and reinforce the guideline initiative in the implementation group, there was a gap of six months between implementation of guidelines and evaluation. The latter corresponded with the period of time, during which additional support was available from the continence advisers for all nurses in the Trust and allowed sufficient time for the clinical guidelines to become established practice.

Sustainability of practice development beyond the period of academic research can be affected by loss of those responsible for managing the change process (Redfern et al 2000, Perry 2002, Meyer 1995). Reinforcement of aims, re-evaluation of guidelines at regular intervals and further educational developments are resource-intensive. In this study, short-term employment of the researcher and a limited length of time on placement within the Trust meant that towards the end of the study, responsibility lay with conference and report preparation and presentation, with less than optimal time remaining to continue to support the practice, including holding a repeat conference. However, progressive work did continue following presentation of the study report (Bignell et al 2000). The standard of the continence assessments was maintained and supported through the role of the continence advisers. The community nurses sent copies of all new continence assessment documents to them. Therefore, an advisory role, already well-established between the continence advisers and some staff at the outset of the study, was further strengthened by their role in checking and responding to new assessment documents.
Recommendations from the report to maximise the existing expertise within the Trust was acted upon immediately. A multi-disciplinary continence clinic was set up and targeting to strengthen the role of link nurses was planned at senior level.

The triangulation of data sources and methods employed in this study presented a fuller picture of all aspects of clinical and organisational functions. Such data present multiple levels of the subject, and findings have more validity than if one source alone is used and to some extent limitations of one method can be compensated for by the strength of another method (Denzin 1989). For example, a relatively low response rate to the nurse questionnaire (43%) at Phase One was compensated for through recruiting more interviewees in the study (29). At Phase Three, the same population of nurses were approached to complete a repeat nurse questionnaire and a higher response rate was achieved (71%).

Possible causes for poor response to questionnaires have been highlighted (Chapter 3, section 3.4.6). It is recognised that the nurse questionnaire, which had been used similarly elsewhere (Cheater 1990, Williams et al 1997, Penney 1999) requires considerable co-operation from the respondents both in terms of time and thoroughness. In particular, for the knowledge section of the questionnaire (Section Two), it was difficult to avoid a format that was reminiscent of an examination and the effort necessary, certainly at Phase One, may have put off many nurses from participating at all and been an important reason why nurses’ responses were low (43%) (Williams et al 1997). Embarrassment from inadequate understanding of the topic and unwillingness to co-operate may have applied (Sapsford and Jupp 1998), especially as the questionnaire requested information about professional knowledge.
and personal views that could be considered sensitive issues to the participants. Anonymity for questionnaire completion in this study had been a factor intended to relieve potential embarrassment and protect the confidentiality of sensitive material. It may have taken longer to complete than originally expected and the nurses may have been discouraged for this reason. Cheater (1990) suggested a further factor in the collection of sensitive data that nurses, being increasingly the target of study in the form of audit, could lower their motivation to participate in voluntary studies. Contact with staff elicited further reasons. These were that pressure of work, which allowed little free time to participate, and giving participation in the study a low level of priority. Participation in research is usually considered an important quality of a “learning organisation”, so may reflect also upon an absence of a learning culture in the organisation (DoH 1998a, NHSE 1997, 1999).

Low response was not the only issue with the questionnaire. Another was thoroughness of its completion at Phase Three. Although there was a better response rate (71%), possibly through improved marketing methods, the efforts made by nurses in completing the questionnaire appeared less thorough. In many responses, knowledge scores were lower than at Phase One. One particular example was that whilst 67% of nurses identified pelvic floor weakness as a major cause of UI at Phase One, at Phase Three, this figure dropped to 27%. This was one aspect of knowledge that was consistently high in both groups at Phase One. An alternative consideration might be that the respondents at Phase Three were different, but they included the respondents from Phase One plus a further fifty nurses. In view of this, it is difficult to know the extent to which responses accurately reflect the scope and depth of respondents’ knowledge, however this is a common criticism of knowledge
questionnaires (Black 1999). Use of vignettes to evaluate clinical knowledge provided more consistent responses at both Phases One and Three suggesting greater validity since they tested knowledge in the context in which it might be used in practice. Information from vignettes at Phase Three certainly seemed to show more consistent information about knowledge gains in the implementation group.

10.3 Nursing Practice: Continence Assessment

The most important and widespread finding from the study at Phase Three was a statistically significant improvement in the quality of continence assessments carried out by community nurses as a result of the introduction of clinical guidelines. Improvements were found in the compliance, detail and quality of recorded assessments after their use for six months, across both implementation and control groups (i.e. across the whole Trust). This was undoubtedly partly due to new assessment forms that served as an “aide-memoire” to assist nurses in the assessment process. However, the quality of assessments was (statistically) significantly better, through being more complete and detailed, in the implementation group compared to the control group. Improved quality of continence assessment for patients indicates a systematic and more effective approach to nursing patients with continence problems. By providing vital baseline data to reach a working diagnosis, or to identify the circumstances for onward referral to specialists, assessments offer important data for later comparisons. Nevertheless, it cannot be assured that patient care is equally improved from this finding alone (Roe et al 1996, Button et al 1998, DoH 2000a). For example, more thorough assessment may not necessarily lead to effective treatment outcomes. Subjective evidence of improved practice and patient
outcomes was however identified in accounts given by nurses in the focus group evaluation of the clinical guidelines, as the following comment suggests:

_F2B: “I diagnosed and treated overactive bladder in this patient. Doing very well”._

So indicating that follow-through to treatment was supported by the guidelines. This statement was representative of a range of comments of this nature.

The use of clinical guidelines and other quality initiatives such as clinical audit have formed a cornerstone in the drive to increase use of research-based evidence into healthcare practice and to ensure compliance of individual practitioners (DoH 1996a). Clinical guidelines and the adoption of new patient documentation that were incorporated into an expected standard of practice were found to have the most significant influence upon changing clinical practice among the community nurses in both the implementation and control group in this study, which supports the conclusions drawn by Thomas et al (1998) that guidelines have most influence upon nurse practice. These findings reinforce the strongly-held view by health policists (Donaldson and Muir Gray 1998) that healthcare organisations with written policy and standards of practice give authority to and strengthen good practice, support and clarify the expectations of a trust for its employees which can be compared over time through audit procedures. This study has identified that areas of practice selected for supported change must be those seen as important issues by key professional staff. A range of deliberate strategies are needed to engage staff, provide essential resources (such as user-friendly documentation that provides appropriate information), and reinforcement that enable new ways of working to become established with some confidence. Review procedures that can identify and celebrate successes are part of
the process. By contrast, even for a small group of professionals (one primary care
team), voluntary compliance with guideline usage, unsupported by clear
documentation or reinforcement can fail to become established practice, as reported
by Button et al (1998), if not part of a wider quality framework, with which staff are
engaged and accountable.

At Phase One of the study, the role of community nurses in continence care for
adults was limited and unclear and had not been the subject of clinical audit,
although a defined role for health visitors with children with enuresis had operated
for some years. In the absence of a defined role, nurses who had undertaken post-
registration courses, especially in the Promotion of Continence (ENB 978), or who
possessed skills in continence assessment and treatments felt frustrated in being
unable to use their skills in continence care fully. They were not supported by
adequate assessment policy and documentation or opportunities to practice
assessment skills and offer treatments, as their role was largely limited to (palliative)
symptom management within the Trust. Garside (1998) and the Audit Commission
(1999) have both indicated that where weak clinical governance systems exist,
evidence-based practice is similarly unsupported. Whilst clinical guidelines
themselves can act as the means to educate professionals, the observation has been
made that informed usage rather than compliance is more valuable (Clarke et al
1998) and that more effective implementation is achieved through a combination of
educational strategies and effective change management strategies (DoH 1996a,
Findings from the document survey demonstrated that by themselves clinical guidelines had a significant positive impact upon the practice of all the nurses using them at Phase Three; 35% of nurses in the implementation group identified them as a major influence, whilst education strategies alone influenced 19%. However, in combination, guidelines and education strategies significantly influenced 61% (p=0.009) of nurses in the implementation group to change their practice. By contrast, the major influence on the control group was the cost and availability of continence products alone (43%). Differences in the outcomes recorded in both groups of nurses studied can be attributed to the series of deliberate change management strategies including guideline introduction and educational interventions targeted at the implementation group, indicating that active implementation strategies are also effective among nurses, as among medical professionals with whom most implementation studies have taken place (NHSCRD 1999). The interventions included the involvement of community nurses in the adaptation of national clinical guidelines for local use, their development and identification along with a range of educational strategies to support their introduction.

10.4 New Insights

Many nurses gained new insights in aspects of assessment practice concerning objective measurements. Implementation group nurses became immediately aware of the improvements they were achieving, as illustrated by the following two of many similar comments:

_FIB: “If assessed properly, they might not need pads”._

_FIB: ” It’s got to be better for the patient”._
They endorsed the value of urine-testing and charting, which had previously not been used regularly; these tools were now readily available for them to use. Nurses commented upon the benefits from using objective assessment measures; for example, as one nurse said:

_F1B: “Charting shows how often they are actually going to the toilet”._

This is one of many representative comments. The new resources were used with good effect by the nurses who were responsible for the significant improvement of recording fluid intake/output by patients from 55% at Phase One to 74% at Phase Three in the implementation group. One key characteristic of chart records that improved significantly in comparison to the control group was the detailed recording of the number of times a patient was actually incontinent (p=0.041). This is an important change because it demonstrates commitment and effort on the part of patients and nurses; in contrast to Phase One when during interviews and focus groups, few nurses reported using charts and none identified them as an assessment practice, but instead relied upon recalled accounts of input/output by patients.

### 10.5 Practical Skills

The difficulty of achieving change in clinical practice settings for continence care has been acknowledged in the literature, in terms of the time and effort involved and the interest and willingness of staff to develop practice skills and (Williams et al 1995, Button et al 1998, Abbott and Hotchkiss 2001). In smaller-scale studies this has been more easily managed because of their smaller size and more close-knit collaborative teamwork (Seim et al 1998, Lagro-Janssen and van Weel 1999, O’Brien 1991, Williams et al 2000), although there are still difficulties associated
with practice development that take place alongside fulfilling responsibilities for existing service provision (Button et al 1998, Abbott and Hotchkiss 2001).

Within this study, the introduction of skills of physical examination was a particular example of the issue of introducing new practice skills for nurses in both groups, and details of the problem were illustrated among nurses in the implementation group. As a consequence of the amount of change required in practice, the inclusion of physical examination in new patient assessments remained low at Phase Three in both implementation and control groups (6%). Although some support in building up skill had been incorporated in the conference workshops and individual tuition at outreach visits, it was not possible to affect the practice of many of the nurses, in part because attendance at the educational and information sessions was an issue in this study for all of the reasons under discussion here. This reflects that more time is required to teach this skill to a large group, compared to other studies, where smaller groups of nurses were intending to use skills of physical examination (Williams et al 2001). Moreover large-scale training schemes need more imaginative planning and resources.

A debate arises over whether it is realistic, even desirable for district nurses to undertake physical examination of patients as an integral part of a thorough continence assessment? Such a role has clearly been demonstrated as feasible elsewhere but only should be performed by skilled practitioners (Button et al 1998). If the responsibility might lie with district nurses, then they need to be trained appropriately, but if not, it should be clear where and under what circumstances they should request a physical examination. Clarification of different responsibilities for
the role has been offered in guidelines (RCP 1995), and more recently in policy
guidance (DoH 2000a) and within this study examples of local strategies and
informal local arrangements were reported by nurses. The study findings illustrate
that substantial investments of time and effort for training are required by
participants and organisers, assuming there is competent tuition available too, to
build up competence in assessment skills in continence care (Abbott and Hotchkiss
2001, Williams et al 2000). Moreover, for nurses to take advantage of in-service
training opportunities requires relief from other work commitments to attend
training. Abbott and Hotchkiss (2001) found that nurses were unable to be released
from service responsibilities to attend training. In the well-funded project reported by
Bryar and Bytheway (1996), funding for staff release for training was made available
for individuals; however this solution is currently not often feasible, especially for
whole professional groups.

The second element to the issue of introducing new skills is whether clinicians have
the interest to participate in role development. The study findings confirmed reports
made in the literature that continence care, although a major component of the work
of nurses (district nurses in particular (Audit Commission 1999)) it was regarded as a
low priority and with less interest by some nurses (Cheater 1990, Button et al 1998,
Abbott and Hotchkiss 2001). This factor was illustrated by low attendance at the
conference and some nurses stated that they were unwilling to develop such ability.
Whilst some nurses had the skill and understood the benefits of carrying out a
physical examination of patients, some felt it was inappropriate for a nurse, as
represented by the following comment:

F2B: “I don’t feel happy about this [assessment], why aren’t the continence
advisers doing this anyway?” (health visitor)
Four nurses in the focus groups regarded physical examination as too sensitive a matter for them to perform, whilst two others felt the need for a considerable amount of tuition in order to achieve acceptable levels of competence, explanations similarly found by Abbott and Hotchkiss (2001). However, if continence assessment and care is to become an acknowledged responsibility of district nurses it needs to be explicitly made into a professional competency and they must receive appropriate training, preferably during their district nurse training.

10.6 Improving Knowledge

Education strategies to improve knowledge among nurses regarding the promotion of continence have frequently been reported as necessary (Kings Fund 1983, Cheater 1990, Palmer 1995, Audit Commission 1999). Nurses in the study shared the view that education is essential to their development to enable them to provide skilled care in the promotion of continence. Cheater (1990) found a poor level of education at both basic and post-registration level of training among all levels of nurses from learners to very experienced nurses working in elderly care and rehabilitation. She concluded that:

“A disparity remains between the size of the problem and the amount of relevant, structured education actually received by nurses in practice.”

(Cheater 1990, page352).

Many of the same circumstances found in her study were reflected in the current study. Cheater identified a dearth of opportunities available for nurses to benefit from education and training and a lack of uptake due to lack of resources: time, managerial support to relieve staff for in-service training or because nurses viewed the subject as
a low priority compared to other areas of practice. Although reporting over ten years later on, the level of formal education and training received by community nurses in this study was still low and was limited in breadth and depth. Less than a quarter (23%) recalled continence education in their RGN training course, 35% during community nurse qualification, with one account of the syllabus of the current district nursing course not having continence care as a core topic at all (Interview 1). Moreover, fewer than 10% of the nurses had undertaken post-registration courses with relevant content, in continence care (ENB 978) or care of elderly people (ENB 941) concentrated among the district nurses. In comparison to both Cheater (1990), who studied the education available to hospital nurses and Penney (1999), among nurses in nursing homes, attendance at the Promotion of Continence course was higher, but less than 10% remains too low to have a real impact Trust-wide.

Post-registration training was described as more freely available in this study, in the form of in-service training in the Trust provided by continence advisers. 83% of the community nurses reported attending in-service training sessions, more so than was reported by Cheater (1990) (43%) or Penney (1999) (40%). In these respects, access to nurse education appeared to have improved somewhat over time. However, the sessions organised by the continence advisers were sometimes limited in their appeal to all professional nurse roles and were reported by 22% of nurses to concentrate upon management techniques and continence products rather than principles of normal and abnormal bladder function and interventions aiming to restore and promote continence. It is possible that the continence advisers believed that the nurses already had that knowledge and their focus was on updating them with new information only.
In this study, competing demands upon the time of the nurses and other chosen or imposed priorities were given as reasons for nurses not attending in-service continence care training sessions; disappointing levels of attendance at the several educational events held during Phase Two, when helping to prepare the nurses for the introduction of clinical guidelines. However, one intervention achieved 54% attendance of the implementation group, and through targeted outreach sessions with nurses, eventually the overall attendance rate by nurses at least one session reached 71%. Whilst 94% of the community nurses at Phase One had stated that they would take the opportunity for further education in continence care, the proportion of nurses willing to take the opportunity was lower (73%) and the proportion that attended proffered training was fewer in the implementation group (71%). This was understandable when nurses freely admitted that other practice responsibilities took priority. Some obvious factors that mitigated against full use being made of educational opportunities in the Trust were a combination of staff shortages, unrelieved cover for sickness, high level of part time staff employed, and the practice of unrelieved secondment to other roles, in addition to the practice of competing initiatives taking place concurrently. Obstacles to participation in in-service training are persistent issues in similar studies (Williams et al 1995, Button et al 1998, Abbott and Hotchkiss 2001), were found in other studies in STEP (Perry 2003, Redfern et al 2000) and are unlikely to be fully resolved at any time. Pressure on service provision, competing priorities and budgetary restrictions highlight the need for more innovative ways of providing education and opportunity for discussion perhaps through existing formalised clinical supervision sessions (DoH 1993b, 2004a); learning sets attached to team meetings; and distance learning/ on-line
education and support that a number of universities and professional organisations now run (Royal College of Nursing).

A vicious cycle develops when nurses fail to really appreciate the need to further their own education so that when the chance permits, they are unlikely to take up the opportunities (Cheater 1990, Abbott and Hotchkiss 2001). The workforce in the Trust were mature both in age and years of nursing service (median years since RGN training 21-25 years and community qualification 10-15 years), yet the time since they had received formal education and training in continence care preceded many of the major developments in knowledge about effective treatments and management strategies (RCP 1995, AHCPR 1996), with the implication that many of them had not been formally taught about such developments. The majority of nurses had expressed feeling adequately prepared for their role at Phases One and Three of the study, however, at Phase Three of the study, this proportion dropped, particularly in the implementation group from 70% to 53%, although this was not statistically significant. This feeling may have resulted from raised awareness of continence issues presented by the questionnaire and introduction of guidelines in the implementation group, so that the expectation of their previous limited role in assessment and treatment of UI had been disrupted and they felt less prepared for an enhanced role. Feeling less adequately prepared for such a role was expressed across all nurses’ groups and among both full-time and part-time staff equally. It may have acted as a trigger to highlight that the nurses needed more, not less education in future.
The majority of community nurses reported their knowledge was not adequate to care for patients effectively. Although this was less pronounced in the implementation group at Phase Three (51%) compared to Phase One (62%), almost 50% of respondents still lacked confidence in the adequacy of their knowledge despite the education programme they had been offered. This perception may persist in members of the implementation group who failed to take advantage of the education programme, but equally it will be important to explore these concerns further in future studies and to identify the type of competencies nurses need but currently feel they lack. It may have been that a considerable change in the level of skill/knowledge was required before nurses would feel competent. Alternatively, or in addition, considering the scale of the study and large number of participants there may have been insufficient educational strategies aimed too broadly across the whole implementation group. Strategies might have been more effective if they had been targeted specifically at district nurses and RGNs who were the key providers of continence care and were utilising those skills very regularly, as supported by the findings of Pearson et al (1995) and in the Audit Commission report (1999), which also highlighted the crucial need for education and guidance by continence advisers.

The level of knowledge demonstrated by nurses in both phases of the study was not high and did not significantly improve between Phases One and Three. In some specific areas of knowledge the implementation group did achieve some significant improvements between Phases One and Three, although overall, these were relatively small changes in knowledge gain. The most notable area of increased knowledge occurred with regard to overactive bladder, neurological causes and treatments. More specific identification of neurological diseases was demonstrated
than at Phase One or in the control group (multiple sclerosis, p= 0.031, cerebral damage, p=0.032, paralysis, p= 0.022). Anticholinergic medication was identified significantly more (p=0.001) as a suitable treatment. Statistically significant changes also were evident in the responses for Vignette 3, which requested information about care and treatments suitable for a patient with overactive bladder. The implementation group identified the cause more than the control group (p= 0.003) and also more than at Phase One (p=0.035) and bladder training as the appropriate treatment more than at Phase One (p= 0.005). The ability to recognise and treat overactive bladder is of particular importance, with key implications for practice, since overactive bladder and mixed incontinence are the most common type of urinary incontinence found in elderly people (Burgio and Goode 1997, Milsom et al 2001). The explanation of the growth in knowledge of this particular cause of urinary incontinence may have occurred because the nurses went on to apply their knowledge gained from the various educational strategies and reinforced by using the guidelines among a group of patients whose most common cause of UI was overactive bladder or mixed incontinence. Experience gained in caring for such patients was described by two nurses in the focus groups, who, in applying the clinical guidelines identified and went on to treat patients with overactive bladder, reportedly with success, although inference from this single example is limited. However, examined alongside significant improvement in identifying patient symptoms of overactive bladder in the document survey, the inference is strengthened.

The implementation group demonstrated statistically significant differences in their increased knowledge for other proactive treatments including referral to
physiotherapy, urologist and GP and reduction in caffeine intake to manage UI. There was also statistically significance in fewer responses that mentioned the use of absorbent pads. This may represent a change in the emphasis towards proactive treatments instead of containment approaches among the implementation group. Responses that identified objective assessment procedures (physical examination, urine testing and to check bowels in vignette 2) were consistently better in the vignettes for the implementation group. More responses to identify causes and treatments were offered for vignette 1 and 2, although recognition of blockage as a potential cause for outflow obstruction was the only statistically significant difference both between phases (p=0.025) and between groups (p=0.018). These factors were poorly represented or absent in the assessment document survey and in nurses’ accounts of their assessment activities at Phase One. Other proactive treatments were identified more at Phase Three including surgery, treating urine infection, taking exercise and patient teaching. A relatively high level of identification of the causes and treatments for stress incontinence were evident across both groups throughout the study, which compares favourably with the ability of respondents in earlier uses of the same questionnaire in descriptive studies, where fewer than 30% of the respondents were able to identify proactive treatments for UI (Cheater 1990, Penney 1999).

Changes in control group responses at Phase Three were relatively small by comparison with the implementation group, but included both positive and negative changes. The groups were very similar at Phase One in their level of knowledge, however, improved responses occurred in several areas of knowledge. Parity as a cause for stress incontinence in the woman in Vignette 1 was identified (p=0.013)
and hormonal changes were identified significantly more (p=0.012) as a cause of UI than in the implementation group. Another significant change was found equally in both groups, where more nurses were aware of the range of normal amounts of residual urine in an adult at Phase Three. The reason for such differences is unclear, but it is unlikely that over the extended period of the study, professional knowledge in the entire control group would remain static. Indeed, several nurses in the control group had reported that they had been influenced to change their practice by improved knowledge (18%), which may have been as the result of personal developments.

10.7 Attitudinal Changes

Attitudes towards elderly people with UI and the nurse role in continence care were generally positive at Phases One and Three across both groups of respondents. Mean scores for each group in the attitude section of the nurse questionnaire ranged from 4.0-4.9 (Table 8, Appendix J), and compared favourably to respondents in other settings in the past, for instance, mean scores of 3.9 were reported by Cheater (1991), using the same questionnaire. Another finding that was the same as Cheater (1991) found, was that a higher individual score and undertaking post-registration education in continence care (ENB 978, 941) was positively correlated (p = 0.004). This demonstrates the link between level of education and equitable rehabilitative attitudes to elderly people with continence problems among health professionals. Such a finding reinforces the importance of education to frontline staff (Button et al 1998), as they have most contact with elderly people (Pearson et al 1995) for whom they are key promoters/gatekeepers of access to appropriate continence care and
treatment (Killoran et al 1997). Whilst the nurses held positive attitudes towards addressing the cause and treatment for UI in general, there were indications that there were some qualifications to this response. For people with long-standing problems and elderly people, whose needs were considered to be different from younger patients, some nurses held rather less positive attitudes. The statements that had the lowest mean score at Phase One (4.0) were that “Continence is not a realistic goal for many incontinent people” and “Two-hourly toileting and incontinence aids are the only realistic way to promote continence for elderly people.” More open expression of views in the interviews and focus groups highlighted some widespread and strongly held assumptions that UI in old age is intractable and futile to address, along with quite negative views of the quality of life that elderly people can achieve or want, and their ability to respond to treatment for UI. Such attitudes are frequently recognised (Palmer 1995, Killoran 1997, Milsom et al 2001) and have implications that patients might be receiving less equitable access to care and treatment (Audit Commission 1999). However, there were also general and concrete examples in the nurses’ accounts that imaginative care of good quality was offered to elderly patients with long-standing UI problems. Emotional support and the maintenance of independence were identified as important considerations in the care they offered to elderly patients, measured by the effect their help had upon the functional ability achieved by patients over time and reporting their comments on the nurse-patient relationship and a sense of being supported in a practical way. Such quality of life measures should be accepted as appropriate performance indicators on the grounds that they are valid for those experiencing the problems (Brocklehurst et al 1999).
Engrained attitudes are difficult to change, more so than behaviours (Rogers 1983), so it was not expected that large differences would be noticed between Phases One and Three among nurses in this study. However, there were some changes noticed in the questionnaire responses at Phase Three and others within the focus group comments. Furthermore, a positive correlation was found between nurses in the implementation group who had undertaken guideline training and higher scores in the combined knowledge/attitude questionnaire ($p = 0.03$). One statistically significant difference in the implementation group occurred between Phase One and Three and between the implementation and control group for statement 3: “Two-hourly toileting and incontinence aids are the only realistic way to promote continence for elderly people.” It appeared that limited understanding of UI, especially for elderly people seemed to restrict nurses’ ability to consider offering help to patients, especially those with long-term problems. A shift in mean of 0.4 (4.1-4.5) indicated that some change had occurred, between Phases to alter their view. This and the earlier point of a positive correlation between post-registration education and more favourable attitudes to elderly people would suggest that the apparently negative attitude to offering help to elderly people was based more upon a lack of knowledge about alternative approaches to their care than an ingrained attitude to elderly people themselves. This evidence underscores the importance of a sound knowledge base upon which to build further practice knowledge. Other smaller positive changes were found in the following attitudes: that incontinence is an inevitable part of ageing; that elderly people with long-standing incontinence do not usually require investigation; health education is as important for older people as for younger people; and that continence is a realistic goal for many people. These shifts in attitude were not shared by the control group, so might be attributed to the
activities connected with education and guideline introduction. Although such changes were not statistically significant, this is principally because of the high level of agreement that existed even at Phase One.

Rehabilitative approaches to elderly people were particularly promoted during the interventions and much open discussion was held about their care. Perhaps the most representative comment about the shift in attitude towards caring for elderly patients was from a nurse who had reassessed an elderly patient with a long-standing problem and reported this to the focus group:

F1C “You think there’s no point and pads are the obvious choice, but the success we’ve had with this lady has been so good”

Practice knowledge, developed through experience and shared with colleagues in the focus group (and later used as an exemplar at the conference and guideline introductions) was of considerable value to the development of more positive attitudes to providing continence care in difficult situations. Such early adopters of the guidelines were able to act as role models for colleagues, a critical driver for practice change as shown by Rogers (1983) and Moulding et al (1999). Their influence among colleagues, through sharing personal examples of effective practice could have further positive effects upon the relative unattractiveness of continence care as an area of practice among community nurses, as has happened in chronic disease management; for instance the work of Morison and Moffatt (1994) has improved both expertise and status for venous leg ulcer management among district nurses.
User involvement

A combination of influences appears to have operated to introduce more positive approaches to the care and treatment of elderly people. At Phase One inequitable attitudes about the provision of treatments for UI were found among the nurses, a common finding, both in the general population (Milsom et al 2001, Perry et al 2000) and healthcare professionals (Burnet et al 1992, Palmer 1995). More positive views among the implementation group developed for those who were exposed early to the benefits of encouraging collaboration with patients in the assessment of continence problems (Bear et al 1997). Patients demonstrated that they were able and willing to participate in the process by taking a lot of trouble in the completion of their part of the assessment document; thus giving better quality data about the problem than nurses were used to achieving and which they appreciated. Another influence was the systematic, embedded policy across the whole organisation through the introduction of the guidelines stating clearly to patients and staff that an equitable rehabilitative approach to continence assessment was the set standard provided, with the result that both users and staff responded positively to coherent policy and leadership (EFQM 1997, Marquis and Huston 2003).

10.8 Role Definition and Development

The majority of all community nurses endorsed the view that a nurse role should involve the assessment, identification of causes, first line treatment and management of UI. However, approximately a third did not subscribe fully to this view, or acknowledged that, in reality their role was limited to managing UI mainly by containment methods. The professional roles of different community nurses were
quite diverse in the provision of continence care. District nurses and RGNs working with them provided the key role in the care of elderly patients with continence problems, but similar roles and responsibilities were undertaken far less and in a more limited way by health visitors and nurse visitors for the elderly. This reinforces reports about the role of district nurses, that one fifth of their work concerns continence care (Pearson et al 1995, Audit Commission 1999). Health visitors provided continence care mainly to new mothers, disabled young adults and children. Nurse visitors for the elderly (NVEs) provided an advice and support service only, and this was a role not widespread in the Trust (6 employees); NVEs felt particularly challenged by the notion of expansion of their role into continence assessment.

However, neither the health visitor nor the NVE roles provided practical management of continence in general; their patient assessments focused upon providing continence products. There was inconsistency across all nurse roles in the interpretation of roles with regard to the expectations from the continence advisers and general practitioners (GPs). Some nurses who were interviewed considered that any patients who were referred from GPs had intractable UI and had already received an assessment, whilst others felt responsible for undertaking an assessment, which was their interpretation of expectation from the continence advisers and some GPs. Variability in expectations upon the nurses led to unclear expression of their role. The solution to this inconsistency would be the adoption of recommendations by Button et al (1998) for all primary care health professionals to use the same clinical guidelines for continence assessment and treatments and/or the responsibility for continence assessment to be clearly assigned within any team.
Another area where lack of clarity was evident was the role of the continence link nurses, which had different meanings for different nurse groups or in different localities of the Trust. A continence link nurse role, for those who have undertaken a Promotion of Continence course, has been observed as part of a coherent structure in pro-active continence services (Clayton et al 1996), and was endorsed as an efficient role for future continence service configuration (DoH 2000a). However, in the Trust, this was not the case. There was also no clear or established position for nurses who had undergone the Promotion of Continence course and these nurses acknowledged that the skills learned were not being fully utilised. For these nurses a structured link nurse role would appear to be an effective way to utilise their experience, rewarded with educational opportunities and recognition and in sufficient numbers to represent each primary care team. This would be coherent with the recommendations of Button et al (1998), whereby a skilled practitioner provides the requisite skill in assessment and treatment for each primary care team. The core of this model was evident in all the findings of this study, with the role undertaken by the district nurses and RGNs in many ways providing co-ordination and leadership in managing continence care provision for elderly people (supported by the continence advisers) within the Trust.

Teams of district nurses and RGNs

District nurses expressed a strong sense of responsibility for continence care for elderly patients, although it was a part of their work that was not regarded with as high a priority as the care of terminally ill patients or leg ulcer management. They were considered by themselves and other members of the primary care team to hold the most appropriate skills and be able to perform all aspects of continence care,
including assessment and practical management of UI symptoms. For this reason district nurses appeared to be at the hub of referral routes for members of the primary health care team, although they were not always aware of the full range of other locally available professional support and resources, especially from physiotherapists and occupational therapists, which were not much utilised. Nevertheless, local arrangements to clarify roles within the primary care team concerning continence care were led by district nurses working with RGNs as part of their teams and throughout the study, participants from these two nurse roles were the most active in all aspects. They provided most respondents to the nurse questionnaire, were the nurses with the highest attendance at the education interventions and were the nurses who expressed most interest and collaborated most in the focus group pilot. District nurses were also those most influenced by clinical guidelines to change their practice after undergoing training; as such, they were an appropriate professional group to fulfil the role as key practitioners in continence care identified by Button et al (1998).

10.9 Changing Practice – Policy and Strategy

Development and implementation of guidelines in this study, as in other practice development studies (Dunning et al 1999, Hamilton and McLaren 1999) and other STEP studies, required influential support and deliberate activity by the change agent/researcher to achieve their objectives (Perry 2002, Doherty et al 2000, Redfern et al 2000). Implementing evidence-based practice into NHS organisations, albeit fulfilling the purpose of the NHS by putting health policy into action and in bridging the research-practice gap, suffers from bureaucracy, power play, cultural factors and competing agendas at every level (Closs and Cheater 1994, Mulhall 1999).
Individual organisational contexts: qualities, culture and facilities strongly influence the effectiveness of new initiatives (Kitson 2000); implementation within a healthcare organisation requires strategic and operational planning, which are not easy to achieve (Humphris and Littlejohn 1996) (see Chapter Two). Therefore, active change management strategies, tailored to that particular organisation, based upon an individualised situational analysis, are a critical factor (Marquis and Huston 2003), and were employed in this study, as with other STEP studies (McLaren et al 2002, Perry 2002). Such analysis, identifying assets, allies and points of resistance to change, at all levels is a key driver to promote change and provides the basis from which to develop strategies with which to communicate with people with a stake in the change initiative, to arouse their professional interest and promote collaboration.

The most influential driving force in this study, to achieve the implementation of clinical guidelines as a Trust-wide strategy was a concurrent policy initiative at the level of the health authority in the form of a review of continence services. Although other factors had identified the need for practice development in this area (SETCAG 1994, RCP 1995), including research funding and permission for this study, it was the review, an external driver for change that shifted the equilibrium sufficiently within the whole Trust, placed continence services high upon the current agenda for the organisation and instigated changes that would otherwise not have occurred (Lewin 1951, Bennis et al 1985, Marquis and Huston 2003). Escalating costs of continence products and the desire to place less reliance upon continence products, to standardise product supply and patient assessment across the whole health authority area were the motivating forces behind the review, as is often the case (Clayton et al 1996, Button et al 1998, Audit Commission 1999, DoH 2000a). The review was co-
ordinated at the most senior level, by the Locality Director. This confirms what other writers have reported, that practice development strategies require an integral position within any organisational aims for their effective implementation (Humphris and Littlejohn 1996, Kitson et al 1998, Dunning et al 1999).

Once in progress, the momentum of the initiative was supported by other factors, including strong leadership from a steering group within the Trust, who could influence progress, for instance, unblock access routes to staff, override inert decision-making by committees and authorise funding for urine testing equipment/stationery to support the continence services guideline group and researcher managing the study. Without such influences, in the densely crowded and pressured contemporary healthcare agenda experienced by primary care trusts (Halligan and Donaldson 2001, Baker 2000), practice development strategies, particularly in areas such as continence care that are non-acute and not mandated areas of practice are likely to receive less than optimal attention and resource allocation (Muir Gray 1997, Dunning et al 1999, DoH 2000a, Thomas 2004). In this study a policy-driven, top-down approach gave authority and opened the only Trust-wide possibility for the effective implementation of clinical guidelines. Guideline adoption was promoted by ownership by frontline staff.

Multi-faceted active strategies, recognised as the most effective approach, were necessary (NHSCRD 1999), and greater effectiveness of the guideline initiative (of statistical significance) was achieved in the implementation group, where educational interventions and strategies to involve community nurses (in the implementation
group), were used to develop knowledge, practice and positive attitudes to the promotion of continence for elderly people. The risk of the Hawthorne effect, where outcome is affected merely by the focus of attention, was minimal, if present at all, for a number of reasons. As Perry (2002) pointed out, all the studies in the STEP project took place within busy, pressured clinical settings. In this study, the attention of the implementation group was continually drawn away from this study and its evaluative focus was not known. Moreover, the time frame for the intervention was prolonged; it took place over one year, and a minority of nurses in the implementation group attended every educational intervention offered, most attending one or two interventions out of a possible four.

Effective strategies for implementing change among nurses are not fully understood (Thomas et al 1998). However, multiple, active educational approaches are suggested to be those most widely effective among health professionals and thus were employed in this study. The findings of this study endorse the suggestion that combined, active approaches rather than passive introduction of clinical guidelines are more effective. Normative-educational strategies, in which social influence is the major factor, have been suggested as the most suitable strategy for the majority of nurses in planned change (Hagerman and Tiffany 1994). Innovative and early adopting nurses (Rogers 1983) responded to educational factual evidence at workshop sessions and individual copies of the guidelines (rational-empirical: information and explanation leads to change) (Marquis and Huston 2003). Finally, a power-coercive strategy (enforcement), using legitimate authority of new policy was needed to influence late majority and late adopters of the initiative. Sustaining the impact of initiatives was addressed through continued support for nurses from the
continence advisers and strengthening links between nurses with particular interest in
the topic and introducing nurses who attended the conference to other specialist
practitioners/services available locally.

10.10 Role of the Researcher

The researcher role was active, facilitative and managerial throughout the research
process and therefore likely to have been influential on a variety of outcomes. A
range of approaches and skills were required at different phases of the study,
accompanied by the need for an acute political sensitivity in a complex environment,
which was a challenging experience.

During Phase One of the study, introducing the study whilst data gathering, the role
needed to be one of negotiation influencing and marketing, as described in Chapter 4
section 4.2. At this point the researcher needs to establish credibility and assure
trustworthiness, with awareness that the way credentials are presented may be crucial
to acceptance by participants in the study and therefore the quality of the data and
consequently the validity of the study (Mason 2001). Personal contact and further
explanations of the purpose of the data collection elicited a better response to the
nurse questionnaire in contrast to written reminders to complete the questionnaire. At
the same time, the role requires exploration of the culture of the setting, which
encompasses having sensitivity to embedded values and assumptions, power systems
and identifying informal leaders. Support from outside the setting from the academic
leader, and other STEP researchers was critical for the researcher here, in order to
discuss and analyse structures and issues that emerged from the situational analysis.
Information management was another requisite; this aspect of the role was especially hard. Utilising a quasi-experimental design with a control group involved information restriction to the control group, but more openly with senior staff who were confidantes. The latter aspect was difficult to govern and at several points the actions of senior staff might have prejudiced later data quality, without prompt remedial action. At Phase One this involved having urgent meetings with managers to reinforce the need for discretion about the study design; to explain the design to managers who wanted additional (allied health professional) staff groups involved in the study during Phase Two; and at Phase Three to maintain authority and control to prevent premature release of the clinical guidelines across the Trust. Feedback to staff of Phase One findings also needed to be selective, so as not to jeopardise later findings. Management of the time frame of the guideline development process became an important role of the researcher, as progress was slow initially and not managed efficiently. Various methods were employed to tactfully drive the process onward, including offering to take responsibility to investigate designs for documentation.

At Phase Two the researcher role focussed upon organising and managing all the educational events and a substantial part in conducting them that were part of the intervention and collaborating with the continence advisers during their own presentations. The extent and thoroughness of the interventions depended substantially upon the effort by the researcher to provide full coverage through outreach visits so that all staff were offered the chance to participate; to encourage sustained interest; and to reinforce knowledge. This was achieved by following up all enquiries for further explanations and discussion; arranging tutorials by the
continence advisers for specific aspects of assessment (vaginal examination and bladder training); and in visiting all sites to deliver personal copies of the guidelines and to check how the nurses were managing their new role. As a result of this activity, 71% of nurses in the implementation group had attended at least one of the education sessions.

At Phase Three, again encouraging nurse responses to the questionnaire through personal contact and brokering sustained support from the continence advisers for the ongoing use of the clinical guidelines occurred via regular discussion of the progress of the study with staff and the continence advisers and constituted the main aspects of the role, in addition to data analysis and reporting the study findings within a limited time frame.

At each stage of the research process in this study, the researcher role was as change agent: negotiating, giving explanations in terms that interested people with differing agendas and responding with deliberate actions to the dynamics and complexities of change processes in a complex organisation to achieve the objectives of the study.

**10.11 Summary**

Change in nursing practice in the form of improved quality of assessments was the main achievement in the study, supported by equipment resources and most of all the strategy of clinical guideline implementation. The strategy succeeded because it was embedded within the organisational aims of the Trust. However, improvements were more thoroughly accomplished in the implementation group, where educational
strategies were employed to support the strategy over the period of a year and resulted in a small number, but significant changes in knowledge about patient assessment, overactive bladder and attitudes towards elderly patients, with important implications for the interpretation of clinical practice that can be attributed to the study interventions. Although practice changes affected a small group of patients initially, the framework for sustained improvements in practice was established and the value of more rehabilitative approaches was acknowledged at all levels of the organisation. Such reflection among the nurses themselves is the basis of critical approaches utilised in action research for practice development.

Not all aspects of the guidelines were fully introduced, as many had not been utilised in nursing care hitherto; and the gap in knowledge and skill to provide all features was large; and some nurses felt unable to embrace such role development without considerable support. Levels of continence education experienced by the nurses were not high and knowledge of underlying causes and treatments for UI was lacking. Consequently, the majority of nurses felt they did not have adequate knowledge to provide effective continence care for patients. Although in-service training by continence advisers was available, it was not structured to support a rehabilitative role and was not widely regarded as an important resource. Nurses felt adequately prepared for a role in providing supportive care and management strategies and containment methods; and they provided accounts of doing so successfully for patients with multiple health problems. Moreover, some nurses were able to offer rehabilitation strategies that aimed to restore continence and many others, in principle were committed to do so. The implementation group demonstrated a shift in attitude towards providing more equitable opportunities for care to elderly people.
Rehabilitative attitudes were significantly positively correlated to those who had undertaken educational guideline training. District nurses offered the most active and committed role in continence care for elderly people, they were also the nurse group who were considered by members of the primary care team to have most skill to perform all aspects of continence care and they were the most involved in implementing the clinical guidelines. However, there was evidence that RGNs in some nursing teams had responsible and dynamic roles in continence care. This factor is important, as more RGNs are being employed in district nursing services.

Implementation of the clinical guidelines required strong leadership and tenacious project management to co-ordinate all the components. All stakeholders were subject to competing responsibilities and priorities, which at times led to slippage and failure for the community nurses to benefit from elements of the strategy (for instance a day conference with popular expert speakers and a free lunch).

Triangulation of methods and data sources were a strength of the study, as a large number of staff views, actions and knowledge was being evaluated. Aspects of the topic could easily have been missed should one or even two methods have been used, as poor response and attention to the questionnaire, might have left large gaps in the data.

The study has identified challenges that face the development of healthcare practice in the NHS in community nursing, an area little studied. Many complex factors and processes are involved in achieving implementation of effective healthcare practices; the place for education and coherent aims in this matter are key, assisted in both by
the use of clinical guidelines, demonstrated to some extent by the findings reported here. Important gains in quality of care can be made by the adoption of clinical guidelines to offer assessment and treatment for elderly patients with continence problems.
Chapter Eleven

Conclusions to the Study

Continence care is an important topic for the study of evidence-based practice development as urinary incontinence is a condition that can have a major impact on the quality of people’s lives and is costly both to sufferers and the NHS. It remains under-reported by many sufferer therefore it is important for all primary healthcare professionals to be well-informed and pro-actively involved in identifying and assessing UI. Initiatives designed to achieve change and develop effective clinical practice are subject to major challenges in all healthcare settings. Often these are due to the complexity of change processes and the fact that appropriate strategies are not fully understood (Dunning et al 1999, Redfern et al 2000). The development and implementation of evidence-based clinical guidelines can operate as authoritative advice and an educational tool especially for nurses (Thomas et al 1998).

The first aim of the current study was to find out whether development and implementation of clinical guidelines for the promotion of continence into one community Trust could positively affect the practice, role, knowledge and attitudes of community nurses. A quasi-experimental research design using a comparison control group, whilst difficult to manage within one Trust area, provided clarity to the results and enhanced the robustness of the conclusions that can be drawn from this study. Evidence has been presented here that the introduction of clinical guidelines by themselves had a substantial and significant impact upon nursing practice in the quality of patient assessment. However, the practice changes were
more significant following a range of strategies that involved educational interventions and active participation in guideline development. Improved knowledge and more positive attitudes to elderly people with urinary incontinence were positively correlated to taking part in the training; and particular aspects of knowledge (mainly concerning overactive bladder) were significantly improved, although overall knowledge and attitudes were not significantly changed by the educational interventions and implementation of clinical guidelines. Although the great majority of nurses in the implementation group took part in at least one intervention, the group did not make full use of the range of educational opportunities offered, for various reasons including pressures of clinical workload and having multiple, competing priorities.

Increased participation by elderly patients in the process of assessment following implementation of guidelines challenged and to some extent changed mistaken assumptions among community nurses about their ability to collaborate with nurses to tackle continence problems, especially those patients who are very elderly and frail. Although many patients known to the community nurses had long term continence care needs and when asked, related their care mainly in terms of the provision of continence supplies, as highlighted by patient data that was not used for this study, there were experiences related in this study where reassessment of long-term patients uncovered new management possibilities for both patients and nurses. The notion and practice of greater collaboration with patients has important implications that patients will be better informed about their condition and their cooperation can be better utilised in active treatments and management as endorsed in “expert patient” schemes (DoH 2002b).
Triangulation of data sources and research methods proved critical in this study to provide deeper and broader perspectives on organisational structures, community nurses’ roles and change processes. Aspects of the topic were uncovered that would not have been revealed using fewer sources or data collection methods, for instance favourable attitude change towards elderly people with UI, described above, was shown to be connected closely to nurses’ experience of using the guidelines and developing practice knowledge. Similarly, a key finding emerged that district nurse and RGN roles were the most closely involved members of the primary care team in providing and co-ordinating continence care for elderly people. This presents the opportunity to recognise the potential future key role for professional nursing teams in the development of continence services, especially the single assessment process recommended by the National Service Framework for Older People (DoH 2001).

The most influential reason for change among the community nurses was the introduction of clinical guidelines into the Trust, utilising active strategies, supported by senior leadership and tenacious project management. However, change would not have occurred on the scale achieved without the impetus of a concurrent policy development strategy in the form of a health authority-driven review of continence services. External policy drivers for change are among the most powerful influences upon change within health trusts. In this case there was increased recognition of the promotion of continence agenda (Audit Commission 1999, DoH 2000a).

However, policy-driven changes can also exert disadvantageous pressures. The pace and burden of multiple policy and strategic changes taking place simultaneously at all levels within the Trust and generally in primary care are common (Garside 1998)
and were important distractions from the discreet task of implementing guidelines for the promotion of continence. Further improvements might have been possible in the study with more engagement by stakeholders within the Trust and dedicated funding to implement the strategy. Specialist nurses in continence care and clinical managers were distracted from becoming fully engaged in supporting the strategy for improved continence care as an operational priority by other agendas and targets set by the Trust, the Health Authority and Department of Health (reference: chapter 8, section 8.4 and 8.5).

Another important influence on the effectiveness of implementation of clinical guidelines was that the majority of community nurses regarded continence care as an important area of practice, for which the guidelines could strengthen their existing skills. The study, as others in the STEP project, was based on a clinical need recognised by nurses that had direct relevance to their workload and captured enthusiasm and commitment from some of them and resulted in visible improvements in patients’ well-being (Redfern et al 2000). Expectations from the clinical guidelines were within the scope of practice of some of the nurses who had experience and skill in assessment and first-line treatment. Other nurses were aware of the need to improve their effectiveness in providing continence care especially among elderly people. Furthermore, all nurses within the implementation group had been offered the opportunity to participate in discussion and those with experience and skill were in a position to influence and discuss such developments with colleagues and everyone with an interest in a pilot of the guidelines prior to the introduction. Level of involvement varied both between different primary health care teams and nurse roles, depending upon individual interest. However, this approach
meant that even those nurses who felt challenged by an enhanced role were enabled to express their views and increase their knowledge rather than feeling marginalised. Acknowledgement of factors important to staff in the developmental stages of the study were accounted for in resource management and were vital to the progress of the guideline strategy.

The second pivotal research question addressed by the study was whether community nurses were able to provide a key role in the promotion of continence for elderly people in primary care. Conclusions about proactive roles were not clear-cut during the lifetime of the study. District nurses and RGNs had an established key role in assessment and the active management of patients and the co-ordination of referral routes, in partnership with general practitioners. Most were committed to providing a role in continence care, as first line assessment and a range of practical and management skills are an established part of the role of district nursing teams (Moore and Fader 1999). Other community nurses: health visitors and nurse visitors for the elderly recognised the strength of this role and continence advisers and GPs were perceived to do so too. At the end of the study, the quality of patient assessment was much improved and that role was strengthened by the support of written guidelines and resources and some examples of active treatments were evident. However, for most nurses, their capacity to provide a complete assessment, diagnosis and first-line behavioural treatment was limited and the majority still felt they had inadequate knowledge to provide effective care for patients with urinary incontinence and a substantial minority felt inadequately prepared for such a role. Community nurses still felt the need for further investment in education and training to develop more
skills in using the clinical guidelines. However, it was evident that to some extent nurses underestimated the value of some skills already utilised. Cheater had described the nurse’s role:

“Nurses have considerable therapeutic potential to help patients regain continence or cope effectively with the physical and psychological problem encountered.”

Cheater 1990 p vi

Emotional support and small gains made through contact between nurses and their patients to manage/solve real life problems were identified by Cheater (1990) as a fundamental part of nursing practice. In this study, district nurses and RGNs explained at the outset how the skills that they possessed had made an impact upon the quality of the lives of some of their patients, although many of the nurses had not received a thorough or recent education in the promotion of continence. At the end of the study, significant improvements in attitudes and knowledge (albeit in discrete, not widespread aspects) had occurred in the group offered training. Further potential to provide a stronger role in the promotion of continence is evident, but requires clearer structures and lines of communication and responsibility for nurses to work within, alongside provision of more practice education and skill building.

Other intervention studies have demonstrated that primary health care professionals and nurses in particular have the capacity to perform key roles in the care of patients with UI and deliver improved patient outcomes (O’Brien 1991, O’Brien and Long 1995, Lagro-Janssen and van Weel 1998, Seim et al 1998). However, descriptive studies have revealed limited levels of education, knowledge and practice competencies among healthcare professionals. Investment in education remains a critical point in developing any role in the promotion of continence. In-service
clinical training is particularly vulnerable to competing priorities of service delivery (Roe et al 1996, Audit Commission 1999, Abbott 1998) as the low levels of attendance at some of the education and training sessions held during this study demonstrated. This was an important reason for the amount of preparation not being adequate for the guidelines to be fully operational after six months in use. Education needs to go hand-in-hand with clinical developments, a factor repeatedly recognised (DoH 1991a, 2000a), and acknowledged and put into action by efficient organisations. Such organisations recognise that communication, planning and managing change positively can only take place with explicit attention to training staff and characterises them as learning organisations (McCormack et al 2002).

Whilst it is important for clinical professionals to be encouraged to develop enthusiasm for new roles, responsibility for supporting those changes must be managerial and integral to organisational strategy (Halligan and Donaldson 2001). Other managerial considerations concern sustaining community nurse roles and co-ordinating succession planning; developing strategies in view of the demography of the district nursing workforce that has about a quarter approaching retirement age.

**Implications for Practice**

This thesis contributes to knowledge of community nurses’ practice, knowledge and attitudes related to the promotion of continence for elderly people, by giving a detailed account from a number of perspectives. Research knowledge contributed by this study demonstrates that development and implementation of evidence-based clinical guidelines, especially using educational strategies, can have a substantial and significant impact upon district nursing practice in the promotion of continence
among elderly people within a large healthcare organisation. The study confirms that clinical guidelines can operate as authoritative advice for community nurses but most effectively in the presence of active dissemination and implementation strategies and with embedded support from healthcare organisations.

The thesis has made the case that of the number of suggested models for the future of continence service delivery that have been recommended (RCP 1995, Button et al 1998, DoH 1991a, 2000a) the model that proposes improved education and awareness among members of the primary care team, with one key competent member within each team is the most efficient for the future. The study identified existing expertise among community nurses in primary care teams; among nurses with post-registration training in continence care; or those who acted as link nurses between their own nursing team and the continence advisers and supported colleagues. Moreover, benefits from this approach have been demonstrated in the results of this study, in terms of the capacity for community nurses to improve practice, knowledge, and attitudes when supported by the use of clinical guidelines and educational interventions. Other evidence supporting this model has been provided by successful treatment studies within primary care by community nurses that have shown significant improvements in outcomes for patients (O’Brien et al 1991, 1995, Seim et al 1998).

Other service model suggestions, although with more appeal as easier to implement; including more reliance upon continence advisers, or a new specialist role of community-based specialist nurses who could work solely to assess and treat patients with UI in primary care (DoH 2000a, Williams et al 2000), would in effect,
concentrate resources so as to detract from the existing strengths of established roles performed by many community nurses in continence care, leading to further specialisation and the fragmentation of locally-based service delivery. The corollary of centralisation of skill and knowledge is that the important message that much can be done to restore continence or alleviate symptoms is unlikely to reach the intended audience of patients.

All community nurses already act in a variety of ways as a conduit (or gatekeeper) for patients to receive assessment, treatment and management for their continence problems. Community nurses are particularly well placed to identify UI among both elderly people and other patients with disability and health problems who are among the most vulnerable groups who might develop UI and for whom they are often the first point of contact in the community (Pearson et al 1995, DoH 2000a). Health visitors meet post-natal mothers for whom prevention and early treatment of UI after childbirth can prevent the development of long-term problems. Nurse visitors for the elderly are routinely providing support and screening services to elderly people and so are in a position to detect problems incidentally during health assessment. Moreover, substantial roles in integrated assessment for elderly people and to fulfil the aims of National Service Frameworks (NSFs) are expected and should require additional skills training (DoH 2001, 2002a, 2002b). Current mandatory Developmental Standards (DoH 2004a) underscore the importance of all recommendations included in NSFs.
Failure to invest in the existing, established role of community nurses where they have adopted rehabilitative approaches would result in the stagnation among current roles and for the future. District nurse and RGN teams currently have the most involvement in assessment and management of continence problems, especially among elderly people in the community who require symptom management and palliative care. Further investment is needed to reinforce current roles performed by community nurses that support the most vulnerable patients and sustain what has already been achieved, albeit in a climate of change upon change within the NHS.

**Future Research**

Long-term management of UI and other related symptoms for elderly people is an area of practice that is particularly challenging for district nurses, especially as urinary incontinence is a health problem that still remains largely taboo in the public arena. Moreover it is an area of practice with limited research-based evidence to guide practitioners in optimal strategies (NMPDU 2002). Although attempts are being made to examine and disseminate good quality research evidence through Cochrane reviews (Eustice et al 2003), the amount of evidence available still remains limited in many aspects of continence care. The involvement of continence advisers, physiotherapists and primary health care teams, through continence clinics and home visits could provide much needed investigation into combined/comparative strategies for patients who are most vulnerable. The recommendation for multi-disciplinary continence clinics was adopted by the Trust that was the setting for this study. An appropriate approach to new research to build on the findings reported here would be within collaborative multi-disciplinary community settings, using action research
based at clinics across a number of health trusts with mixed methodology to measure objective clinical/functional, lifestyle and quality of life outcomes for patients. Such co-ordinated research activity can have the additional effect of raising professional interest and pride among local nurses and generating more research-mindedness. Collaborative guidance/involvement from an academic researcher/practitioner/tutor would be necessary to facilitate the process and simultaneously build skills and promote other elements of evidence-based practice as well as raise the profile and status of clinical continence care.

Another implication of the findings for future research is that in the real, pressurised world of the NHS, whilst clinical governance has brought leadership and coherence to quality initiatives within NHS organisations, including encouragement for research-mindedness and collaborations, new structures and responsibilities have almost overwhelmed healthcare trusts. The result is that stasis of practice development can paradoxically be hampered for professional staff. Collaborative research links between academic and service organisations benefit both domains substantially and should be encouraged further; however for efficiency of research funding investment, certain criteria need to be acknowledged and responded to under contract at a preliminary stage. It is well known that practice development initiatives are significantly disrupted in settings where major structural changes and other disruptions are proposed or have recently occurred. Moreover, weak contextual characteristics in organisations are known to impede adoption of effective clinical practices (McCormack et al 2002). Critical situational analyses to identify such circumstances should always preclude that investment or incur some financial sanction. Whilst this may seem harsh, the NHS is familiar with contractual obligation
and latterly research governance frameworks, so there should be no problem with negotiated facilities being clarified prior to embarking upon any enterprise.

**Recommendations for Practice**

Any recommendations for practice arising from this study need to be considered within the wider context of continence service delivery in primary care. The model described above that acknowledges and strengthens the existing key position of community nurses in assessment and referral is favoured from the findings of this study. Taken further, collaboration with skilled multi-disciplinary team members would take account of new healthcare roles and responsibilities and are listed below.

- **Continence clinics**, run by a multi-disciplinary team are an efficient use of centralised resources within primary care trusts to support first-line management of UI in primary care.
- **Service delivery in the promotion of continence** would be better co-ordinated by shared use of clinical guidelines by all members of the primary care team and community services, in line with Integrated Continence Services (DoH 2001) and guidelines for primary care (Button et al 1998).
- **Education interventions** are an ongoing need among community nurses as they are expected to take on increased roles in assessment as part of National Service Frameworks.
- **Leadership by a key person** within each primary health care team would help to maintain expertise and co-ordination of promotion of continence within each team and provide firm links to specialist services. Link nurse roles in many different specialities can perform this function well.
In conclusion, guidelines supported by education make a difference to clinical practice among community nurses. It is clear that community nurses and in particular district nurses are well placed to play more proactive and responsible roles in assessment and the management of continence problems in elderly patients living in the community. However, to do so they require the full commitment of supporting managerial structures and systems at all levels within healthcare organisations both at primary care trust and at Strategic Health Authority level.


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**Introduction**

Information about aetiology and prevalence of urinary incontinence is included here as a necessary adjunct to the study. This information underpins the knowledge needed by healthcare professionals to be able to perform a role in continence care with competence.

**Aetiology of Urinary Incontinence**

Urinary incontinence is a symptom of one or more underlying causes which may be reversible or more persistent. The AHCPR international guidelines (1992, 1996) classified causes as pathology of anatomy or physiology affecting the urinary tract and extrinsic factors, some of which can be reversed. However, a more comprehensive classification utilised by Norton (1987) and later Button et al (1998) in a systematic review of literature is used here. It elaborates further upon extrinsic causes affecting the patient’s ability, acknowledging that some extrinsic factors require skilled long-term management and may not be reversible. The causes are grouped thus:

- Pathophysiology, as above
- Factors affecting bladder function
- Factors affecting the ability to cope with the bladder.

**Pathophysiology**

Pathophysiology of the lower urinary tract can affect neural networks between the sacral spine and cerebral cortex, the bladder, pelvic floor musculature and/or neuromuscular co-ordination between them (Getliffe and Dolman 2002). Overactive bladder (formerly called urge incontinence or detrusor instability) is an involuntary loss of urine caused by
uncontrolled contraction of the bladder (detrusor muscle) during the bladder filling stage (Roe et al 1999). It can be idiopathic or associated with known neurological conditions and chronic outlet obstruction cause by prostate enlargement (Bosch 1999). Associated symptoms are urgency, frequency, and nocturia. This is the most common cause of UI in elderly people (Griffiths et al 1994, Milsom et al 2001, Perry et al 2000).

Genuine stress incontinence is the term for loss of urine when intra-abdominal pressure is raised during coughing or exertion in the absence of detrusor contraction (AHCPR 1992 Abrams et al 2002). The cause is loss of structural support from a weakened or damaged urethral sphincter and associated pelvic floor muscles. The degree of bladder descent or urethral movement indicates the severity; at worst, the sphincter fails and leakage occurs with minimal activity. Genuine stress incontinence is the commonest cause of UI in women following childbirth trauma, postmenopausal loss of muscle bulk or in men, post-prostatectomy (Berghmans et al 1998).

Overflow incontinence is a voiding problem presenting as retention of urine, hesitancy, frequency or constant dribbling. It can originate from an underactive bladder (RCP 1995), as a side effect of medication, or outlet obstruction, most commonly prostate enlargement in older men (Abrams 1995), faecal impaction, or urethral stricture (AHCPR 1992).

Underactive bladder describes an acontractile detrusor, where the detrusor muscle is unable to sustain contraction during micturition, sometimes termed neurogenic or reflex incontinence. It is usually due to neurological lesions at various sites, for instance caused
by peripheral nerve damage related to diabetic neuropathy, multiple sclerosis, spinal cord damage, bladder or pudendal nerve damage during childbirth. It may lead to overflow incontinence (AHCPR 1992). Mixed incontinence may occur when more than one type of physiological cause exists, presenting with mixed symptoms, although commonly it refers to a combination of stress incontinence and overactive bladder (Burgio and Goode 1997).

Factors affecting bladder function

Medical illness
Specific medical illnesses, causing altered renal, cerebral and neurological function, such as cardiovascular disease, stroke and endocrine disorders can influence continence status (AHCPR 1992). Polyuria associated with diabetes mellitus and diabetes insipidus may precipitate UI and the effects of peripheral neuropathy have been mentioned. The complexity of UI can be illustrated in the example of stroke patients, among whom UI is common. Interruption of neural networks controlling micturition at the cerebral cortex may occur compounded by cognitive impairment, mobility and communication problems. Low oestrogen levels after menopause affects urethral closure and lower urinary tract function (Fantl et al 1994, Robinson and Cardoza 2003). Neurological damage may occur as a result of pelvic surgery, or be the effect of congenital disorders such as spina bifida.

Effects of ageing on the bladder
Several normal physiological changes that occur with ageing may influence a person’s ability to maintain continence, particularly in the presence of other pathology (Getliffe
Reduced muscle tone in the bladder, urethral sphincters and pelvic floor muscles and decreased bladder capacity are the result of hypotrophy of bladder smooth muscle (detrusor), collagen and elastic tissue, reduced vascularity and in women, lower circulating levels of oestrogen may lead to atrophy. Increase in connective tissue has been found to be the dominating change in the process of ageing (Verelst et al 2002). Cortical neuropathy may cause reduced bladder sensation. The effect may be delayed awareness of the desire to void urine until the bladder is almost full, allowing less time to find a toilet. In the presence of other disabilities, causing decreased mobility, urge incontinence may occur. Other neurological changes may affect the micturition centres in the pons and cerebral cortex causing nocturnal frequency, poor co-ordination of detrusor contraction and sphincter relaxation (dyssynergia) may lead to outflow obstruction. Any cerebrovascular diseases or mental impairment affecting memory can result in the person simply forgetting to go to the toilet (Griffiths et al 1994, Engberg et al 1997, Getliffe and Dolman 2002).

Glomerular filtration rate and sodium reabsorption are lowered, and the renal response to antidiuretic hormone (ADH) may become blunted. The general effect on the body is a reduced ability to compensate for disease or stresses and specifically the ability to concentrate urine and reabsorb water to compensate for dehydration. Drugs excreted through the kidneys may have reduced clearance with the possibility of toxic effects. In the presence of heart failure, urine is produced mainly at rest. As the incidence of disability increases with age, symptoms of disabling conditions such as arthritis and pulmonary disease can affect mobility and dexterity among elderly people.
“Many elderly people experience varying degrees of multiple pathology such that a combination of a number of different factors contribute to problems of incontinence.” (Getliffe and Dolman 2002 p.39).

Whilst these factors may make them more susceptible to risks of incontinence, it is not an inevitable part of the ageing process (Getliffe and Dolman 2002, Button et al 1998).

**Drug therapy**

Side effects of many prescribed and over-the-counter (OTC) drugs can cause or exacerbate symptoms of UI (AHCPR 1992, 1996). Elderly people, who are most affected by polypharmacy, are therefore most vulnerable. Sedative hypnotics, especially long-acting agents, may cause confusion and immobility from the effects of accumulation in the body. Landi et al (2002) reported a 45% increased risk of UI among frail elderly people living at home (n=4583) who were users of benzodiazepines. Diuretics that cause rapid diuresis may lead to polyuria, frequency and urge incontinence. Excessive use of diuretics may lead to dehydration and electrolyte imbalance. Anticholinergic agents included in some OTC preparations, have a wide range of uses: antihistamines, antidepressants and antispasmodics may cause retention of urine and overflow incontinence. Alpha-adrenergic agents include alpha agonists contained in decongestants increase sphincter tone with the possible effect of urinary retention. Alpha antagonists, used to treat hypertension may decrease sphincter tone and lead to stress incontinence. Calcium channel blockers can reduce smooth muscle contractility and so risk urinary retention. Alcohol and caffeine both have diuretic effects. Alcohol can produce sedation and immobility, especially nocturnal enuresis.
Caffeine has been shown to stimulate the detrusor muscle, exacerbating overactive bladder (Button et al 1998).

**Constipation**

Faecal impaction or chronic constipation can precipitate overactive bladder or overflow incontinence by compression of the bladder and urethra. Ostensibly a transient cause (AHCPR 1996), it is also a symptom with a further complex aetiology. These relate to dietary and fluid management, other illnesses and effects of medication, as well as the person’s level of activity and mental state (Edwards 2002).

**Urinary tract infection**

Acute symptomatic infection may cause dysuria, and urgency by sensitising bladder stretch receptors, whilst untreated infection may contribute to ascending infection or chronic inflammatory interstitial cystitis (AHCPR 1992). Undiagnosed urinary tract infection was found among 6% of patients (n=654) during screening in GP practice by Elliott (1990). The incidence was highest (24%) among elderly patients. Urinary symptoms improved after treatment. UI has also been found to be more common among patients with asymptomatic bacteriuria in residential care (Hedin et al 2002).

**Factors affecting the ability to cope with the bladder**

**Functional ability**

Loss of mobility and dexterity are caused by disabling conditions and failing vision. They may affect the person’s ability and awareness to reach and use the toilet.

**Environmental factors**

Toileting facilities and the ability to reach them independently have an important effect upon continence. Toilet accessibility, in terms of the distance to them and whether they
can be used unaided can have an important effect, along with privacy and cleanliness of the facilities. Choice of clothing that is suited for independent undressing, optimal chair height and mobility aids all play a part in promoting and maintaining continence (Norton 1996, Getliffe and Dolman 2002).

Mental states

Depression may be both a potential cause and effect of UI. Motivation towards many self-care functions may decline with severe depression. Decline in mental functioning affect people with dementia and is positively correlated to UI. Other effects include profound life changes such as bereavement and entering institutional care. Developmental factors associated with learning disabilities are linked to UI (Stanley 2002, Button et al 1998).

Needing assistance

The availability and attitudes of family or paid carers has an important effect for someone dependent upon others for the maintenance of continence (Bear et al 1997).

In summary, urinary incontinence is a symptom, commonly experienced with other related symptoms, and which has many possible underlying physiological causes compounded or concomitant with other disease or functional problems and require different therapeutic approaches. Symptoms may indicate a number of causes. Urgency, for instance, may indicate infection, obstruction, overflow problems or overactive bladder. Leaking on exertion might indicate overactive bladder, stress, or overflow incontinence. Identification of the problem is further complicated by the presence of illnesses and other problems such as drug side-effects so that patients may have
components of more than one cause, especially frail elderly people (AHCPR 1992, Engberg et al 1997). Systematic patient assessment is therefore essential to identify all the factors that might be causing the problem, to identify and distinguish causes.

**Prevalence of Urinary Incontinence in the UK**

The experience of UI is widespread but may not be a permanent or frequent problem (see Table). Numbers of adults affected by occasional incontinence (less than twice a month) are reported to be between 4-11% (Perry et al 2000, Brocklehurst 1993). Roe and Doll (2000) found that whilst 23% of all adults had at some time experienced UI or had the need to use appliances, the condition did not persist. Similarly, Perry et al (2000) found that 35% of women had at some time had UI. Others have found UI also in elderly people to be a dynamic state, with significant remission and incidence rates over 2-3 years (Burgio et al 1991, Nygaard and Lemke 1996)
<table>
<thead>
<tr>
<th>Study</th>
<th>Number of responses</th>
<th>Population</th>
<th>Data collection</th>
<th>Definition of incontinence used</th>
<th>Prevalence All adults</th>
<th>Prevalence Elderly people</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Thomas et al 1980</td>
<td>18,084</td>
<td>All patients over 5 yrs in 12 GP practices in 3 London boroughs, Bristol and South Wales</td>
<td>Postal questionnaire</td>
<td>Regular incontinence: two episodes or more in the last month.</td>
<td>1.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Over 15 years</td>
<td>Over 65 years</td>
</tr>
<tr>
<td>O’Brien et al 1991</td>
<td>5,661</td>
<td>One rural and one urban GP practice Random selection of patients over 35 years</td>
<td>Postal questionnaire</td>
<td>Regular incontinence: twice a month or more</td>
<td>7.4%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Broklehurst 1993</td>
<td>4,007</td>
<td>Stratified 178 sampling constituency points then random sampling</td>
<td>Interview</td>
<td>“Have you suffered from bladder problems, e.g. leaking, wet pants, damp pants?” in the previous week In the past two months</td>
<td>2.2%</td>
<td>5.7%</td>
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<td></td>
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<td></td>
<td></td>
<td>Over 30 years</td>
<td>Over 60 years</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>2.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Study</td>
<td>Number of responses</td>
<td>Population</td>
<td>Data collection</td>
<td>Definition of incontinence used</td>
<td>Prevalence</td>
<td>Prevalence</td>
</tr>
<tr>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Over active bladder symptoms. Any symptoms of frequency, nocturia &gt;2, strong urgency, urge incontinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milsom et al 2001</td>
<td>16,776</td>
<td>Six European countries including UK. (France, Germany, Italy, Spain, Sweden)</td>
<td>Telephone interview/face to face in Spain.</td>
<td></td>
<td>Over 40 years</td>
<td>15.6% 17.4%</td>
</tr>
<tr>
<td>(SIFO and GALLUP poll)</td>
<td></td>
<td>Over 40 years. Telephone or electoral listings. Stratified geographical variables.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perry et al 2000</td>
<td>10,226</td>
<td>137 GP practices in Leicestershire Health Authority. Random selection of patients over 40 years. None in institutional settings</td>
<td>Postal questionnaire</td>
<td>Urinary incontinence (UI) or symptoms more than once a month. Symptoms include: nocturia, frequency, urgency, straining, pain on micturition (Clinically significant symptoms CSS).</td>
<td>Over 40 years</td>
<td>8.9% 20.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Any UI CSS bothersome</td>
<td>Over 60 years</td>
<td>28% 38.8%</td>
</tr>
<tr>
<td>Roe and Doll 2000</td>
<td>6,139</td>
<td>Two Family Health Service Authorities (FHSA) Random sample of patients over 18 years</td>
<td>Postal questionnaire</td>
<td>Regular incontinence: twice or more a month.</td>
<td>0 over 30 years</td>
<td>Over 65 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.5% combined</td>
</tr>
</tbody>
</table>

**Six major epidemiological studies of prevalence of urinary incontinence in the UK**
UI is therefore a significant problem in the adult population and all of the studies have consistently shown that prevalence and severity of symptoms of UI increase with age. People are living with significant clinical symptoms (Milsom et al 2001) and UI is associated with other health problems (Roe and Doll 2000). In people over 65 years regular incontinence (twice or more a month) becomes more prevalent (7-22%) and Thomas (1980), and Perry (2000) reported further increases after 75 years in women.

The wide variation in prevalence figures has been attributed to differences in samples, method of enquiry and definition of incontinence. Samples that include young adults will tend to show an overall lower prevalence rate. Difficulty arises from the sensitive, and embarrassing nature of the topic and may discourage accurate reporting, especially among those people most severely affected, who may be unwilling or unable to respond to a survey (Roe and Doll 2000). Skill in sensitive questionnaire design and interview technique have been shown to influence how much is revealed and therefore the prevalence rate from studies (Fultz and Herzog 2000). Thomas’ 1980 study remains the largest epidemiological study carried out in the UK (n=18,000) and achieved a high response rate (89%). Their approach used a short questionnaire sent personally from people’s general practitioner, whereas Roe and Doll (2000) attributed their poorer response rate (53%) to its more impersonal general health survey style. Thomas et al (1980) reported the lowest prevalence rates among the larger studies discussed. Higher prevalence figures obtained more recently (Perry et al 2000, Milsom et al 2001) may be the result of a comparative increase in awareness, reduced stigma and more openness among the public towards continence problems.
Standardised definitions of UI would allow clearer comparisons between study populations and assist clinical practice, but they vary (Roe and Doll 2000). The ICS definition used until 2002 was widely accepted, but required objective demonstration of UI. This was been found unfeasible by researchers, especially in larger surveys, (Brocklehurst 1993, Perry et al 2000). Moreover, it was acknowledged that in clinical practice, especially in primary care it may not be possible or necessary to demonstrate incontinence, reported symptoms by patients may be sufficient (Button et al 1998). The accepted definition was therefore changed (Abrams et al 2002).

Such apparently high rates of UI in the population are nevertheless thought to be an underestimation of the problem. (AHCPR 1992, Button et al 1998). Thomas et al (1980) found evidence that urinary incontinence was under-reported. They identified a higher prevalence in their own survey than for people already known to health and social services departments. More recent reports have shown that fewer than a third of those with moderate to severe incontinence were recognised or in receipt of health or social services including district nurse, health visitor, laundry service or continence pads (DoH 1991a, Audit Commission 1999).

There appear to be a number of influences that might explain reluctance among people who experience UI to seek help or persist with treatments, in addition to embarrassment, as already presented above. Lagro-Janssen and van Weel (1998) found that the key factor that motivates patients to seek help is the severity of their symptoms and the degree to which the individual perceives symptoms as a problem. In studies offering assessment and treatments to patients with UI in primary care, some with severe urinary
symptoms declined help, 45% (O’Brien et al 1991), 59%, (Williams et al 2000), and 61% (Button et al 1998) of all patients did so, whilst Hay-Smith et al (2003) found that the drop-out rates from treatment programmes varied from 12-41% in 20 studies of pelvic floor muscle training reviewed. Tolerance of symptoms therefore appears common, especially for elderly people, even when distress, embarrassment and social isolation were experienced (Grimby et al 1993). Such reluctance to seek help may be associated with persistent belief among the public that incontinence is untreatable and inevitable with ageing. Similar belief that UI is not treatable and is inevitable with ageing has been found among nurses (Palmer 1995) and other health professionals. Difficulty in identifying and offering treatment for UI are also affected by pre-existing assumptions among both health professionals and elderly patients themselves that disease prevention or health promotion are largely irrelevant to older people, even as secondary or tertiary measures (Killoran et al 1997, Silverman et al 1997). Unfortunately, such beliefs and assumptions in the professions, which contribute to health care policies, structures and decision-making, can discriminate against elderly people receiving equitable health care (Killoran et al 1997) and can clearly affect whether assessment, referral and treatment are offered by doctors (McDowell et al 1994).
Appendix B

Clinical guidelines for the promotion of continence
Appendix C

Community Nurse Questionnaire
COMMUNITY NURSE QUESTIONNAIRE (PHASE 1)

Thank you for agreeing to complete this questionnaire. The information will be used as a basis for further training and education and to direct future practice development issues in this area. If you feel unable to answer a question please write ‘don’t know’ beside it and proceed to the next one. I am interested in your views rather than right or wrong answers.

SECTION 1: Please complete the following details about yourself.

1. In which locality do you work? Waverley [ ] Surrey Heath [ ] Guildford [ ] Hants [ ]

2. Do you work as a District Nurse [ ] Health Visitor [ ] Nurse Visitor for the Elderly [ ] RGN [ ]

3. Do you work .. Full time [ ] Part time [ ]

4. How long have you been qualified as a registered nurse? ____________________

5. How long have you been qualified as a district nurse/health visitor?_________________

6. Have you received any education/training in the promotion of continence/management of incontinence?

   YES  NO

7. If so, was it? Please TICK any boxes that apply.

   In your general training course
   In your community training course
   ENB 978 Promotion of Continence course
   ENB Care of the Elderly course
   Provided by the Continence advisers in this Trust
   Have you been to any Trust continence sessions since last November?
   Other.

If other, please describe:
Please describe how long ago any training was, by whom the training was given, what it was about and how long did it last.

8. Do you feel you have received adequate preparation for your role in caring for people who experience urinary incontinence?

   YES  NO
SECTION 2 The following questions ask for your views about causes of urinary incontinence.

1. What causes of urinary incontinence are you aware of?

2. It is widely acknowledged that older people are more prone to urinary incontinence than younger people, why do you think this may be the case?

3. Women are more prone to urinary incontinence than men, why do you think this is the case?

4. What treatments are you aware of to help a person restore continence?

5. What strategies are you aware of to help a person manage the problem of urinary incontinence?
6. In most people, how much urine would you expect the bladder to hold at capacity?

a) Up to 200mls  
b) Over 200 but less than 400mls  
c) Between 400 and 600mls  
d) Over 600mls

7. In most people how much urine would you think needs to be in the bladder before they get the urge to pass urine?

a) 150mls  
b) 300mls  
c) 450mls  
d) 600mls

8. How many times would you expect an adult to pass urine within twenty-four hours (given a fluid intake of 1.5 litres)?

_________ times

9. How often would you expect a young adult to pass urine during the night _________ times

10. How much urine would you expect to find in the bladder immediately after passing urine?

___________ mls

11. Please read these scenarios.
For each one: - Can you list the possible cause or causes for the problem and What you would do for this patient/client?

A. Anne is married with three children. She has noticed for a while that she tends to leak urine when she coughs or lifts heavy objects. She has decided to seek help, having been embarrassed at her keep fit class when she “flooded”. She is dry most of the time and not wet at night.

B. Joe has a painful abdomen. When he goes to the toilet he finds it difficult to start passing urine and when he does, is able to pass very little. It usually takes some time as the flow tends to stop and start. He also dribbles urine between visits to the toilet.
C. Jill knows when she needs to pass urine but gets very little warning. She needs to get to the toilet in a hurry and often has accidents as a result. Over the past few months she seems to have been able to wait for shorter and shorter periods between visits to the toilet and is occasionally wet at night.

12. Do you feel that post-qualification education/training on continence promotion and the management of incontinence is necessary?

   YES  NO

13. Would you like the opportunity to undertake further education/training in relation to continence care?

   YES  NO

If so, in what area do you feel that you would benefit from additional education?

14. Do you feel that you have adequate knowledge to effectively care for patients experiencing incontinence?

   YES  NO

SECTION 3: The following are statements with which you are asked to indicate the extent of your agreement/disagreement.

Example: Yellow is a warm colour

   Agree  X  Disagree

S1. The nurse’s primary role in caring for patients with incontinence should be concerned with supplying appropriate aids.

   Agree  Disagree

S2. Incontinence should always be investigated.

   Agree  Disagree
S3. Two hourly toileting and incontinence aids are the only realistic ways to promote continence for older people.

Agree | Disagree

S4. Patients are incontinent due to laziness.

Agree | Disagree

S5. It is important for all nurses to have a good understanding of the causes of incontinence.

Agree | Disagree

S6. Elderly people with long standing incontinence problems do not usually require investigation.

Agree | Disagree

S7. Incontinence is an inevitable part of the ageing process.

Agree | Disagree

S8. Continence is a realistic goal for many incontinent people.

Agree | Disagree

S9. Health education is as important for the older people as for younger people.

Agree | Disagree

S10. I find it demoralising looking after incontinent patients, since there is little I can do to help.

Agree | Disagree

S11. Incontinence is usually more distressing for a younger person than for someone who is elderly.

Agree | Disagree

S12. Continence issues are an important part of nursing care.

Agree | Disagree

S13. It is important to address the cause of incontinence when planning nursing care.

Agree | Disagree

Thank you for completing this questionnaire. Please add any further comments you may have overleaf and return it to: Viv Bignell. STEP Project Nurse,
Community Nurse Interview Framework:

1. Please would you describe your current role in relation to clients aged 65 years and over with urinary incontinence?

2. Would this account differ in any way if you were describing your role in relation to a younger patient? Please explain.

3. Do you ever have cause to refer patients over 65 years to other health care professionals regarding their urinary incontinence?

4. To whom do you refer them?

5. Do you refer patients to the GP, for what reason?


7. Do you ever refer patients to the continence adviser? For what reasons might you consider referring them?

8. Is there anyone else you might refer a patient to for their urinary incontinence? Who and why?

9. What do you think the GP expects you to do when they refer patients with urinary incontinence to you?

10. What role do you think the continence advisers expect you to undertake?

11. Do you feel that you are adequately prepared for your role in relation to patients with continence problems?

12. Have you the experience of looking after someone with continence problems where you intervention was successful and they became better?

13. Do you feel able to care for older people with continence problems in the way you feel they should be cared for or the way you would like to care for them? Please explain. If no, what stops this from happening at the moment?

14. Are you a member of the continence link group?

15. Below is a list of activities to do with continence care. Could you please fill it in to show which ones you think can be carried out by each of the professional groups in each column. Of those you have chosen for your nurse role, are there any that you perform rarely?
<table>
<thead>
<tr>
<th>Activity</th>
<th>DN</th>
<th>HV</th>
<th>NVE</th>
<th>RGN</th>
<th>GP</th>
<th>Continence Adviser</th>
<th>Other Please state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing</td>
<td></td>
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<td></td>
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<tr>
<td>Determining Cause</td>
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<tr>
<td>Suggesting Suitable Drug Therapy</td>
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<tr>
<td>Teaching Pelvic Floor Exercises</td>
<td></td>
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<tr>
<td>Teaching Bladder Re-education</td>
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<tr>
<td>Teaching Intermittent Self Catheterisation</td>
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<tr>
<td>Teaching about the use of urinary sheaths</td>
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<tr>
<td>Teaching about the use of absorbent pads</td>
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<tr>
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<tr>
<td>Advising about dietary/fluid intake</td>
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<td></td>
</tr>
<tr>
<td>Select &amp; fit absorbent products</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Select &amp; fit urinary sheath</td>
<td></td>
<td></td>
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<tr>
<td>Discuss with the patient their perception of the problem</td>
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<tr>
<td>Suggest suitable adaptations to the living environment to promote continence</td>
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<tr>
<td>Teach the carer how to assist the patient to manage their continence problems</td>
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</tbody>
</table>

16. Do you feel you have had adequate education and training for your role in the care of people with urinary incontinence?

17. Is there anything else that you feel would help you in your role? Please specify.

18. Is there anything that you feel hinders you in your role?

19. Would you be interested in further education and training?

20. Do you feel you have sufficient time to care for patients’ continence problems as you would wish to?

21. Have you been involved in any audit activity in relation to caring for people with urinary incontinence?

22. Have you been involved in any continence care projects?

23. Have you been involved in writing any standards, policies or guidelines relating to continence care used within the Trust?

24. Is there anything else you would like to add?
Appendix D

Continence assessment document at Phase One
Appendix E

Glossary of Terms

**Practice**: Usual or customary action (in the exercise of a profession). (Collins Dictionary 2002).

**Role**: The part played by a person in a particular social setting, influenced by their expectation of what is appropriate, in this case a professional work role (Haralambos 1986).

**Primary care**: The term primary care team has been used for more than a decade to refer to the group of healthcare professionals who work in a local community and provide health services to people registered with a particular general practice of one or more general practitioners. It comprises the general practitioner(s), the practice nurses they employ and community nurses: district nurse, health visitors, community psychiatric nurses registered and general nurses and healthcare assistants who may work with the community trained staff. This is meaning of the term in this thesis, although in some circumstances the term may include other visiting paramedical staff such as occupational therapists and physiotherapists if regularly attached to that practice. There is no single definition of the scope or constituency of primary care in and the term has often been used interchangeably with general practice in policy papers (Rosen 2000).

**Patients**: The term patient is used throughout the thesis, meaning the person who is receiving care from a member of the primary health care team, although health visitors and other health professionals sometimes use the term client.
Appendix F

Programmes of Educational Interventions:

- Education Workshops
- Guideline Introduction sessions
- Day Conference programme

STEP – UP Your skills!

Workshops for the Assessment of Urinary Incontinence

Introduction
National and local policies: the promotion of continence
What nurses in the Trust want to know about continence care

Anatomy and Physiology
Normal urinary tract
Neurological control of micturition
Components for continence
Video- types of incontinence

Quiz & Tea
Quiz used was -RCN Continuing education –Assessment (Getliffe 1996)
Tea and discuss answers

Assessment
Symptoms and underlying causes in elderly people
Detective work
Find treatable causes
Identify contributing factors
Referring on
Tests and investigations
Discuss local case studies using new local assessment documents

Questions and Evaluation
Evaluation sheet
# Introduction to New Continence Standards & Guidelines

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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 19th April 1999</td>
<td>2-4.30</td>
<td>M Clinic</td>
</tr>
<tr>
<td>Friday 23rd April 1999</td>
<td>10-12.30</td>
<td>M Clinic</td>
</tr>
<tr>
<td>Friday 23rd April 1999</td>
<td>2-4.30</td>
<td>M Clinic</td>
</tr>
<tr>
<td>Wednesday May 5th 1999</td>
<td>10-12.30</td>
<td>B Rd Clinic,</td>
</tr>
<tr>
<td>Wednesday May 5th 1999</td>
<td>2-4.30</td>
<td>B Rd Clinic,</td>
</tr>
<tr>
<td>Friday 14th May 1999</td>
<td>2-4.30</td>
<td>B Rd Clinic,</td>
</tr>
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</table>

Any queries about the sessions should be made to:-

Viv Bignell STEP Project Leader    
Tel:                                 
Fax:                                 

or

Continence Adviser    
Tel:                                 
Fax:                                 

---

South Thames Evidence-based Practice project (STEP)
and the …… NHS Trust
Day Conference

on Friday 28th May 1999

Promotion of Continence: Bladder Care and Treatments.

Venue:

Potential Outcomes
1. To become more familiar with local continence services: their methods of assessment, investigation and treatment.
2. To become more aware of effective assessment methods, treatments and management of incontinence in the community.

Programme for the day

<table>
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<tr>
<th>Time</th>
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<tr>
<td>09.15-0930</td>
<td>Introduction</td>
<td>Viv Bignell  STEP Project Nurse</td>
</tr>
<tr>
<td>9.30-10.00</td>
<td>Levels of Assessment and Referral Pathways</td>
<td>Continence Adviser</td>
</tr>
<tr>
<td>10.00-10.30</td>
<td>Role of the Urology Nurse</td>
<td>Urology Nurse Specialist</td>
</tr>
<tr>
<td>10.30-10.45</td>
<td>Coffee</td>
<td></td>
</tr>
<tr>
<td>10.45-11.30</td>
<td>A Theoretical Approach to Pelvic Floor Rehabilitation</td>
<td>Mary Dolman Clinical Nurse Specialist Continence and Stoma Care</td>
</tr>
<tr>
<td>12.30-1.15</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1.15-2.00</td>
<td>The Management of Indwelling Catheters and the use of Bladder Washouts.</td>
<td>Dr Kathy Getliffe Senior Lecturer in Nursing, EIHMS, University of Surrey.</td>
</tr>
<tr>
<td>2.00-2.30</td>
<td>Role of the Physiotherapist in Continence Care in a Community Hospital Clinic</td>
<td>Senior Physiotherapist,</td>
</tr>
<tr>
<td>2.30-3.00</td>
<td>Workshop: Pelvic Floor Exercises/ Demonstration of Bladder Scanner/ Fluid input/output charts</td>
<td>Continence Advisers</td>
</tr>
<tr>
<td>3.00-3.15</td>
<td>Tea</td>
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<tr>
<td>3.15-4.00</td>
<td>Workshop repeated</td>
<td>As Above</td>
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<tr>
<td>4.00</td>
<td>Evaluation</td>
<td>Viv Bignell</td>
</tr>
<tr>
<td>4.15</td>
<td>Finish</td>
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Appendix G

Ethics documents

- Ethic Committee consent documents.
- Pre and post-interview information for nurses
- Interview consent form
- Thank you letter to community nurses at the end of the study
Pre Interview Information

Thank you for agreeing to be interviewed for this study. As explained in our earlier telephone conversation the NHS Trust is currently involved in a research project to evaluate the impact of evidence based guidelines to support the role of district nurse/ health visitors who provide care for clients 65 years and over with urinary incontinence. This project forms part of a larger research study, The South Thames Evidence Based Practice (STEP) Project, which is concerned with evaluating ways of getting research evidence into practice.

As part of this project I am interested in learning more about health care professionals views related to urinary incontinence, its treatment and management in older people.

I would be grateful if you could assist me by answering a few questions. There are no right or wrong answers; I am interested in your views and opinions.

The answers you provide will be treated in confidence and your anonymity will be ensured in any resulting reports or publications.

The interview will last approximately 30 minutes. Participation is voluntary and you are free to stop it at any point.

Post Interview Information

Thank you for your help. You will be kept informed of the results of this study as they become available, If however, you have any questions or concerns about the project in the meantime, please do not hesitate to contact me (Telephone:…….)

Would you be willing to be contacted again (in approximately 12 months time) to participate in the follow up evaluation of this project?

Thank you once again for your time and interest.

Consent Form for Taped Face to Face Interviews with Health Care Professionals
Consent Form

STEP PROJECT: The Promotion of Continence in Primary Care

I have received a written explanation of the purpose of the STEP study, have had any questions I may have had satisfactorily answered and agree to be interviewed for this purpose. I also agree for this interview to be tape-recorded.

Signed ________________________ (Full Name ______________ (Please print))

I consent for the information I have provided as part of the above interview to be used for the purposes of the STEP study.

Signed ________________________ (Full Name ______________ (Please print))

Witness ________________________ ( Researcher)
Re: STEP Project: the Promotion of Continence in Primary Care

Dear Colleague,

This two year project is now complete. Very many of you generously participated in the different phases of the study by completing questionnaires, being interviewed and by negotiating contact with patients. Without your valuable contributions the study would not have been possible. Many thanks to you for your help and interest.

A summary of the project is enclosed, including details of contacts if you wish to refer to the full Report. Some of the Report’s recommendations are already being implemented, which will support your role in ways you have identified in the course of the project.

Yours sincerely,

Viv Bignell

STEP Project Leader
Appendix H

Tables of Biographical Data at Phase Three

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<thead>
<tr>
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<th>Phase One n=101</th>
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<tbody>
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<td>Implementation n=50</td>
<td>Control n=51</td>
<td>Total</td>
<td>Implementation n=76</td>
</tr>
<tr>
<td>Full-time post</td>
<td>22 (46%)</td>
<td>26 (50%)</td>
<td>48 (48%)</td>
<td>26 (34%)</td>
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<tr>
<td>Part-time post</td>
<td>28 (54%)</td>
<td>25 (49%)</td>
<td>53 (52%)</td>
<td>50 (66%)</td>
</tr>
</tbody>
</table>

Table 1: Comparisons of working hours between Phases One and Three across implementation and control groups

<table>
<thead>
<tr>
<th></th>
<th>Phase One n=101</th>
<th></th>
<th>Phase Three n=166</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implementation group n=50</td>
<td>Control group n=51</td>
<td>Implementation group n=76</td>
<td>Control group n=90</td>
</tr>
<tr>
<td>Range</td>
<td>4- 47</td>
<td>6.5-40</td>
<td>4-44</td>
<td>1-38</td>
</tr>
<tr>
<td>Mean</td>
<td>23</td>
<td>23.8</td>
<td>22</td>
<td>21.5</td>
</tr>
<tr>
<td>Median</td>
<td>22</td>
<td>25</td>
<td>22</td>
<td>21.5</td>
</tr>
<tr>
<td>Mode</td>
<td>20</td>
<td>26</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>SD</td>
<td>8.68</td>
<td>8.71</td>
<td>9</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Table 2: Years since general nurse qualification
<table>
<thead>
<tr>
<th></th>
<th>Phase One n=95</th>
<th>Phase Three n=122</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implementation group n=47</td>
<td>Control group n=48</td>
</tr>
<tr>
<td>Range</td>
<td>1-28</td>
<td>0.2-35</td>
</tr>
<tr>
<td>Mean</td>
<td>12.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Median</td>
<td>13</td>
<td>11.4</td>
</tr>
<tr>
<td>Mode</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>SD</td>
<td>7.3</td>
<td>7.9</td>
</tr>
</tbody>
</table>

**Table 3: Years since community qualification.**

<table>
<thead>
<tr>
<th>Job title</th>
<th>Phase One N=102</th>
<th>Phase Three n=168</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number % within nurse role</td>
<td>number % within nurse role</td>
</tr>
<tr>
<td>District nurse</td>
<td>11 20%</td>
<td>18 22%</td>
</tr>
<tr>
<td>Health visitor</td>
<td>12 30%</td>
<td>13 32%</td>
</tr>
<tr>
<td>Nurse visitor – elderly</td>
<td>0 0%</td>
<td>1 17%</td>
</tr>
<tr>
<td>RGN</td>
<td>1 50%</td>
<td>7 18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24 (24%)</strong></td>
<td><strong>39 (23%)</strong></td>
</tr>
</tbody>
</table>

**Table 4: Continence education during RGN training**
### Education during community training course

<table>
<thead>
<tr>
<th>Job title</th>
<th>Phase One</th>
<th>Phase Three</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% within role</td>
<td>Number</td>
<td>% within role</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District nurse</td>
<td>1</td>
<td>2%</td>
<td>39</td>
<td>48% *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health visitor</td>
<td>5</td>
<td>12% **</td>
<td>4</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6 (6%)</td>
<td></td>
<td>43 (35%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* chi-squared p=0.000  ** chi-squared p=0.014

Table 5: Continence education during community nurse training

### Training from continence advisers

<table>
<thead>
<tr>
<th>Job title</th>
<th>Phase One</th>
<th>Phase Three</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% within role</td>
<td>number</td>
<td>% within role</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District nurse</td>
<td>46</td>
<td>85%</td>
<td>71</td>
<td>87%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health visitor</td>
<td>32</td>
<td>78%</td>
<td>35</td>
<td>85%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse visitor – elderly</td>
<td>5</td>
<td>83%</td>
<td>4</td>
<td>67%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RGN</td>
<td>2</td>
<td>100%</td>
<td>28</td>
<td>72%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>85 (83%)</td>
<td></td>
<td>138 (82%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Amount of In-service continence training received
### Promotion of Continence Course (ENB 978)

<table>
<thead>
<tr>
<th>Job title</th>
<th>Phase One</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% within role</td>
<td>Number</td>
</tr>
<tr>
<td>District nurse</td>
<td>8</td>
<td>15%</td>
<td>10</td>
</tr>
<tr>
<td>Health visitor</td>
<td>3</td>
<td>7%</td>
<td>1</td>
</tr>
<tr>
<td>Nurse visitor – elderly</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>RGN</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11 (11%)</strong></td>
<td></td>
<td><strong>12 (7%)</strong></td>
</tr>
</tbody>
</table>

Table 7: Number of nurses who had taken the Promotion of Continence course

### Care of Elderly People – (Course ENB 941)

<table>
<thead>
<tr>
<th>Job title</th>
<th>Phase One</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% within role</td>
<td>Number</td>
</tr>
<tr>
<td>District nurse</td>
<td>7</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Health visitor</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Nurse visitor – elderly</td>
<td>2</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>RGN</td>
<td>1</td>
<td>50%</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 (1%)</strong></td>
<td></td>
<td><strong>15 (9%)</strong></td>
</tr>
</tbody>
</table>

Table 8: Number of nurses who had taken the Care of elderly people course
<table>
<thead>
<tr>
<th>Source</th>
<th>Phase One</th>
<th>Phase Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enuresis Conference</td>
<td>2 (2%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Enuresis training</td>
<td>2 (2%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Sessions with physiotherapist within GP practice</td>
<td>4 (4%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Training within another trust</td>
<td>3 (3%)</td>
<td>4 (2.4%)</td>
</tr>
<tr>
<td>Link nurse sessions</td>
<td>5 (5%)</td>
<td></td>
</tr>
<tr>
<td>Reading professional journals</td>
<td>5 (5%)</td>
<td>2 (1.2%)</td>
</tr>
<tr>
<td>College-based study days</td>
<td>2 (2%)</td>
<td></td>
</tr>
<tr>
<td>ENB 350- care of physically disabled people</td>
<td></td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Return to nursing course</td>
<td></td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>23/102 (23%)</td>
<td></td>
<td>11/168 (7%)</td>
</tr>
</tbody>
</table>

Table 9: Other sources of continence training
### Table 1: Causes of Urinary Incontinence Identified at Phase Three compared to Phase One

<table>
<thead>
<tr>
<th>Identified causes of UI</th>
<th>Phase One</th>
<th>Phase Three</th>
<th>Both groups</th>
<th>Implementation group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 102</td>
<td>n = 168</td>
<td>n = 77</td>
<td>n = 91</td>
<td></td>
</tr>
<tr>
<td>Pelvic muscle weakness</td>
<td>68 67%</td>
<td>35 21% *</td>
<td>19 25%</td>
<td>16 18%</td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>4 4%</td>
<td>25 15%</td>
<td>12 16%</td>
<td>13 14%</td>
<td></td>
</tr>
<tr>
<td>Prolapse</td>
<td>24 24%</td>
<td>19 11%</td>
<td>11 14%</td>
<td>8 9%</td>
<td></td>
</tr>
<tr>
<td>Sphincter damage</td>
<td>9 9%</td>
<td>6 4%</td>
<td>3 4%</td>
<td>3 3%</td>
<td></td>
</tr>
<tr>
<td>Childbirth</td>
<td>13 13%</td>
<td>30 18%</td>
<td>14 18%</td>
<td>16 18%</td>
<td></td>
</tr>
<tr>
<td>Poor obstetrics</td>
<td>3 3%</td>
<td>2 1%</td>
<td>1 1%</td>
<td>1 1%</td>
<td></td>
</tr>
<tr>
<td>Impaction</td>
<td>25 25%</td>
<td>28 17%</td>
<td>17 22%</td>
<td>11 12%</td>
<td></td>
</tr>
<tr>
<td>Obstruction</td>
<td>9 9%</td>
<td>13 8%</td>
<td>6 8%</td>
<td>7 8%</td>
<td></td>
</tr>
<tr>
<td>Prostate enlargement</td>
<td>37 36%</td>
<td>48 29%</td>
<td>22 29%</td>
<td>26 29%</td>
<td></td>
</tr>
<tr>
<td>General neurological damage</td>
<td>51 50%</td>
<td>67 40%</td>
<td>32 42%</td>
<td>35 38%</td>
<td></td>
</tr>
<tr>
<td>Paralysis</td>
<td>20 20%</td>
<td>13 8%</td>
<td>10 13% **</td>
<td>3 3%</td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>19 19%</td>
<td>15 9%</td>
<td>11 14% ***</td>
<td>4 4%</td>
<td></td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>5 5%</td>
<td>4 2%</td>
<td>2 35</td>
<td>2 2%</td>
<td></td>
</tr>
<tr>
<td>Cerebral damage</td>
<td>12 12%</td>
<td>19 11%</td>
<td>13 17% ****</td>
<td>6 7%</td>
<td></td>
</tr>
<tr>
<td>Local bladder nerve damage</td>
<td>25 25%</td>
<td>2 1%</td>
<td>2 3%</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Congenital</td>
<td>9 8%</td>
<td>10 6%</td>
<td>3 4%</td>
<td>7 8%</td>
<td></td>
</tr>
<tr>
<td>Idiopathic</td>
<td>3 3%</td>
<td>1 1%</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Neoplasm</td>
<td>14 14%</td>
<td>16 10%</td>
<td>7 9%</td>
<td>9 10%</td>
<td></td>
</tr>
<tr>
<td>Bladder disease</td>
<td>10 10%</td>
<td>8 5%</td>
<td>2 3%</td>
<td>6 7%</td>
<td></td>
</tr>
<tr>
<td>Urological damage</td>
<td>13 13%</td>
<td>19 11%</td>
<td>8 10%</td>
<td>11 12%</td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>5 5%</td>
<td>2 1%</td>
<td>1 1%</td>
<td>1 1%</td>
<td></td>
</tr>
<tr>
<td>Mobility restriction</td>
<td>28 28%</td>
<td>41 24%</td>
<td>22 29%</td>
<td>19 21%</td>
<td></td>
</tr>
<tr>
<td>Dexterity limitations</td>
<td>4 3%</td>
<td>5 3%</td>
<td>4 5%</td>
<td>1 1%</td>
<td></td>
</tr>
<tr>
<td>Physically disabling diseases</td>
<td>7 7%</td>
<td>21 13%</td>
<td>9 12%</td>
<td>12 13%</td>
<td></td>
</tr>
<tr>
<td>Environmental problems</td>
<td>4 4%</td>
<td>5 3%</td>
<td>4 5%</td>
<td>1 1%</td>
<td></td>
</tr>
<tr>
<td>Lack of assistance</td>
<td>1 1%</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Infection</td>
<td>47 46%</td>
<td>85 51%</td>
<td>40 52%</td>
<td>45 49%</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>21 21%</td>
<td>20 12%</td>
<td>8 10%</td>
<td>12 13%</td>
<td></td>
</tr>
<tr>
<td>Alcohol&amp; fluid intake</td>
<td>3 3%</td>
<td>7 4%</td>
<td>5 7%</td>
<td>2 2%</td>
<td></td>
</tr>
<tr>
<td>Old age</td>
<td>5 5%</td>
<td>15 9%</td>
<td>8 10%</td>
<td>7 8%</td>
<td></td>
</tr>
<tr>
<td>Illness</td>
<td>10 6%</td>
<td>3 4%</td>
<td>7 8%</td>
<td>1 1%</td>
<td></td>
</tr>
<tr>
<td>Vaginal changes</td>
<td>3 3%</td>
<td>1 1%</td>
<td>1 1%</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Hormonal changes</td>
<td>1 1%</td>
<td>11 7%</td>
<td>1 1%</td>
<td>10 11% ****</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>3 3%</td>
<td>2 1%</td>
<td>0 0</td>
<td>2 2%</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>4 4%</td>
<td>6 4%</td>
<td>1 1%</td>
<td>5 6%</td>
<td></td>
</tr>
<tr>
<td>Dementia</td>
<td>15 15%</td>
<td>21 13%</td>
<td>11 14%</td>
<td>10 11%</td>
<td></td>
</tr>
<tr>
<td>Confusion</td>
<td>9 9%</td>
<td>15 9%</td>
<td>5 7%</td>
<td>10 11%</td>
<td></td>
</tr>
<tr>
<td>Learning disability</td>
<td>6 6%</td>
<td>10 6%</td>
<td>3 4%</td>
<td>7 8%</td>
<td></td>
</tr>
<tr>
<td>Lack of motive</td>
<td>2 2%</td>
<td>1 1%</td>
<td>1 1%</td>
<td>0 0</td>
<td></td>
</tr>
</tbody>
</table>

* chi-squared p = 0.008, ** p=0.019, *** p=0.025, **** p=0.036, ***** p=0.011
### Table 2: Reasons why older people are more prone than younger people to urinary incontinence.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Phase One</th>
<th>Phase Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced mobility</td>
<td>42 (41%)</td>
<td>93 (55%) *</td>
</tr>
<tr>
<td>Pelvic muscle weakness</td>
<td>32 (31%)</td>
<td>25 (15%)</td>
</tr>
<tr>
<td>Prostate enlargement</td>
<td>23 (23%)</td>
<td>26 (16%)</td>
</tr>
<tr>
<td>Age changes</td>
<td>19 (19%)</td>
<td>35 (21%)</td>
</tr>
<tr>
<td>Dementia</td>
<td>19 (19%)</td>
<td>12 (7%)</td>
</tr>
<tr>
<td>Multiparous</td>
<td>19 (19%)</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Loss of muscle control</td>
<td>17 (17%)</td>
<td>20 (12%)</td>
</tr>
<tr>
<td>Other diseases</td>
<td>15 (15%)</td>
<td>24 (14%)</td>
</tr>
<tr>
<td>Loss of bladder tone</td>
<td>13 (13%)</td>
<td>15 (9%)</td>
</tr>
<tr>
<td>Infection</td>
<td>12 (12%)</td>
<td>16 (8%)</td>
</tr>
<tr>
<td>Use of diuretics</td>
<td>11 (11%)</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Constipation</td>
<td>10 (10%)</td>
<td>18 (11%)</td>
</tr>
<tr>
<td>Prolapse</td>
<td>9 (9%)</td>
<td>6 (4%)</td>
</tr>
<tr>
<td>Menopause</td>
<td>8 (8%)</td>
<td>23 (14%)</td>
</tr>
</tbody>
</table>

* chi-squared = 0.024

### Table 3: Reasons why women are more prone to urinary incontinence than men.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Phase One</th>
<th>Phase Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childbirth</td>
<td>81 (80%)</td>
<td>139 (83%)</td>
</tr>
<tr>
<td>Pelvic muscle weakness</td>
<td>39 (38%)</td>
<td>55 (33%)</td>
</tr>
<tr>
<td>shorter urethra</td>
<td>16 (16%)</td>
<td>25 (15%)</td>
</tr>
<tr>
<td>Pelvic anatomy</td>
<td>13 (13%)</td>
<td>28 (17%)</td>
</tr>
<tr>
<td>More prone to urine infection</td>
<td>10 (10%)</td>
<td>10 (6%)</td>
</tr>
<tr>
<td>No advice after childbirth</td>
<td>8 (8%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Menopause</td>
<td>8 (8%)</td>
<td>10 (6%)</td>
</tr>
<tr>
<td>Prolapse</td>
<td>8 (8%)</td>
<td>8 (5%)</td>
</tr>
<tr>
<td>Other gynaecological problems</td>
<td>7 (7%)</td>
<td>15 (9%)</td>
</tr>
<tr>
<td>Reduced oestrogen</td>
<td>6 (6%)</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>Hormonal differences</td>
<td>5 (5%)</td>
<td>22 (13%) *</td>
</tr>
</tbody>
</table>

* chi-squared p=0.030
### Table 4: Treatments identified to restore continence and strategies to manage urinary incontinence

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Phase One N=102</th>
<th>Phase Three N=168</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic muscle exercises</td>
<td>73 (72%)</td>
<td>121 (72%)</td>
</tr>
<tr>
<td>Absorbent pads</td>
<td>46 (45%)</td>
<td>63 (38%)</td>
</tr>
<tr>
<td>Anticholinergic medication</td>
<td>35 (34%)</td>
<td>94 (56%) *</td>
</tr>
<tr>
<td>Surgery</td>
<td>33 (32%)</td>
<td>89 (53%)</td>
</tr>
<tr>
<td>Timed voiding</td>
<td>33 (32%)</td>
<td>49 (29%)</td>
</tr>
<tr>
<td>Bladder training</td>
<td>32 (31%)</td>
<td>59 (35%)</td>
</tr>
<tr>
<td>Increase fluid intake</td>
<td>26 (26%)</td>
<td>54 (32%)</td>
</tr>
<tr>
<td>Containment aids</td>
<td>25 (25%)</td>
<td>29 (17%)</td>
</tr>
<tr>
<td>Equipment</td>
<td>25 (25%)</td>
<td>28 (17%)</td>
</tr>
<tr>
<td>Catheter</td>
<td>23 (23%)</td>
<td>32 (19%)</td>
</tr>
<tr>
<td>Urology referral</td>
<td>19 (19%)</td>
<td>21 (13%)</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>18 (18%)</td>
<td>35 (21%)</td>
</tr>
<tr>
<td>Vaginal cones</td>
<td>15 (15%)</td>
<td>26 (16%)</td>
</tr>
<tr>
<td>Intermittent self-catheterisation</td>
<td>15 (15%)</td>
<td>19 (11%)</td>
</tr>
<tr>
<td>Bowel care</td>
<td>15 (15%)</td>
<td>27 (16%)</td>
</tr>
<tr>
<td>Treat urine infection</td>
<td>14 (14%)</td>
<td>42 (25%)</td>
</tr>
<tr>
<td>Urodynamics</td>
<td>13 (13%)</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>Change environment</td>
<td>13 (13%)</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Refer to continent advisers</td>
<td>12 (12%)</td>
<td>18 (11%)</td>
</tr>
<tr>
<td>Take exercise</td>
<td>11 (11%)</td>
<td>36 (21%)</td>
</tr>
<tr>
<td>Diet</td>
<td>11 (11%)</td>
<td>24 (14%)</td>
</tr>
<tr>
<td>Support</td>
<td>10 (10%)</td>
<td>10 (6%)</td>
</tr>
<tr>
<td>Rehabilitation to improve mobility</td>
<td>10 (10%)</td>
<td>23 (14%)</td>
</tr>
<tr>
<td>Teaching</td>
<td>9 (9%)</td>
<td>28 (17%)</td>
</tr>
<tr>
<td>Fluid intake/ output chart</td>
<td>8 (8%)</td>
<td>23 (14%)</td>
</tr>
<tr>
<td>Adapted clothing</td>
<td>6 (6%)</td>
<td>13 (8%)</td>
</tr>
<tr>
<td>Assess medication</td>
<td>6 (6%)</td>
<td>4 (2%)</td>
</tr>
<tr>
<td>Refer to GP</td>
<td>5 (5%)</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>Provide physical help</td>
<td>4 (4%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Reduce caffeine intake</td>
<td>2 (2%)</td>
<td>18 (11%) **</td>
</tr>
<tr>
<td>Lose weight</td>
<td>2 (2%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Treat pain</td>
<td>2 (2%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Vaginal plug</td>
<td>2 (2%)</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Take oestrogen</td>
<td>2 (2%)</td>
<td>8 (5%)</td>
</tr>
<tr>
<td>Oestrogen cream</td>
<td>1 (1%)</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Quit smoking</td>
<td></td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Bladder scan</td>
<td></td>
<td>4 (2%)</td>
</tr>
<tr>
<td>Health promotion</td>
<td></td>
<td>2 (1%)</td>
</tr>
</tbody>
</table>

* chi-squared P = 0.001  ** chi-squared P = 0.008
<table>
<thead>
<tr>
<th></th>
<th>Implementation Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase One</td>
<td>Phase Three</td>
</tr>
<tr>
<td></td>
<td>n =50</td>
<td>n =77</td>
</tr>
<tr>
<td>Pelvic muscle weakness</td>
<td>39 78%</td>
<td>65 85%</td>
</tr>
<tr>
<td>Parity</td>
<td>17 34%</td>
<td>26 34%</td>
</tr>
<tr>
<td>Prolapse</td>
<td>9 18%</td>
<td>9 12%</td>
</tr>
<tr>
<td>Physical examination</td>
<td>5 10%</td>
<td>14 18%</td>
</tr>
<tr>
<td>Urine test</td>
<td>15 30%</td>
<td>15 20%</td>
</tr>
<tr>
<td>Fluid chart</td>
<td>0 0%</td>
<td>4 5%</td>
</tr>
<tr>
<td>GP referral</td>
<td>17 34%</td>
<td>9 12%</td>
</tr>
<tr>
<td>Referral to continence advisers</td>
<td>1 6%</td>
<td>7 9%</td>
</tr>
<tr>
<td>Refer to physiotherapist</td>
<td>6 12%</td>
<td>22 28%</td>
</tr>
<tr>
<td>Pelvic muscle exercises</td>
<td>38 76%</td>
<td>62 81%</td>
</tr>
<tr>
<td>Provide pads</td>
<td>4 8%</td>
<td>4 5%</td>
</tr>
</tbody>
</table>

* Chi-squared between groups p = 0.001  ** Chi-squared between groups p = 0.033

Table 5: Answers to Vignette One: A patient presenting with stress incontinence
<table>
<thead>
<tr>
<th></th>
<th>Implementation Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase One n =50</td>
<td>Phase Three n =77</td>
</tr>
<tr>
<td>Blockage</td>
<td>4 8% 18 23% 0.025**</td>
<td>7 14% 10 11%</td>
</tr>
<tr>
<td>Prostate enlargement</td>
<td>44 88% 70 98%</td>
<td>43 83% 78 86%</td>
</tr>
<tr>
<td>Check bowels</td>
<td>7 14% 20 26%</td>
<td>12 23% 17 19%</td>
</tr>
<tr>
<td>Refer to GP</td>
<td>43 86% 52 67% Fewer 0.019</td>
<td>40 77% 57 63%</td>
</tr>
<tr>
<td>Refer to urologist</td>
<td>8 16% 24 31% 0.054</td>
<td>8 15% 23 25%</td>
</tr>
<tr>
<td>Physical examination</td>
<td>1 2% 17 22% 0.002 ***</td>
<td>4 8% 8 9%</td>
</tr>
<tr>
<td>Urine test</td>
<td>5 10% 11 14%</td>
<td>9 17% 6 7% 0.044 fewer</td>
</tr>
<tr>
<td>Catheter</td>
<td>1 2% 5 7%</td>
<td>2 4% 7 8%</td>
</tr>
<tr>
<td>Provide pads</td>
<td>7 14% 3 4% 0.039 fewer</td>
<td>6 12% 11 12%</td>
</tr>
</tbody>
</table>

** Chi-squared between groups p = 0.032  ** * Chi-squared between groups p = 0.016

Table 6: Answers to Vignette Two: A patient presenting with outflow obstruction
## Table 7: Answers to Vignette Three: A patient presenting with overactive bladder

<table>
<thead>
<tr>
<th></th>
<th>Implementation group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase One: n = 50</td>
<td>Phase Three: n = 77</td>
</tr>
<tr>
<td><strong>Overactive bladder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 (38%)</td>
<td>44 (57%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.035 *</td>
<td></td>
</tr>
<tr>
<td><strong>Neuropathy, including MS</strong></td>
<td>6 (12%)</td>
<td>9 (12%)</td>
</tr>
<tr>
<td></td>
<td>23 (46%)</td>
<td>32 (41%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.010 fewer</td>
<td></td>
</tr>
<tr>
<td><strong>Physical examination</strong></td>
<td>4 (8%)</td>
<td>5 (7%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.059 fewer</td>
<td></td>
</tr>
<tr>
<td><strong>Urine test</strong></td>
<td>6 (12%)</td>
<td>22 (29%)</td>
</tr>
<tr>
<td><strong>Mid-stream urine sample</strong></td>
<td>18 (36%)</td>
<td>11 (14%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.004 fewer</td>
<td></td>
</tr>
<tr>
<td><strong>Fluid chart</strong></td>
<td>3 (6%)</td>
<td>8 (10%)</td>
</tr>
<tr>
<td><strong>Bladder retraining</strong></td>
<td>5 (10%)</td>
<td>24 (31%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td><strong>Refer to GP</strong></td>
<td>23 (46%)</td>
<td>30 (39%)</td>
</tr>
<tr>
<td><strong>Provide pads</strong></td>
<td>13 (26%)</td>
<td>9 (12%)</td>
</tr>
<tr>
<td><strong>p values</strong></td>
<td>0.037 fewer</td>
<td></td>
</tr>
</tbody>
</table>

* chi-squared between groups p = 0.003
** chi-squared, between groups p = 0.000
Table 8: Frequency distribution of nurses’ responses to attitude questionnaire
At Phases One and Three

<table>
<thead>
<tr>
<th>Question</th>
<th>n= at Phase 1/Phase 3</th>
<th>Scores at Phase One/Phase Three</th>
<th>Implementation group Phase 1/Phase 3</th>
<th>Control group Phase 1/Phase 3</th>
<th>Both groups Phase 1/Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. The nurse’s primary role in caring for patients with incontinence</td>
<td>n=102</td>
<td>4 3 15 32 48</td>
<td>Mean score 4.0 SD 1.0</td>
<td>Mean score 4.3 SD 1.0</td>
<td>Mean score 4.1 SD 1.0</td>
</tr>
<tr>
<td>should be concerned with supplying appropriate aids.</td>
<td>n=164</td>
<td>8 12 28 29 87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2. Incontinence should always be investigated.</td>
<td>n=101</td>
<td>2 3 9 87</td>
<td>Mean score 4.8 SD 0.4</td>
<td>Mean score 4.8 SD 0.7</td>
<td>Mean score 4.8 SD 0.6</td>
</tr>
<tr>
<td></td>
<td>n=164</td>
<td>2 6 14 139</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q3. Two hourly toileting and incontinence aids are the only realistic</td>
<td>n=99</td>
<td>2 8 19 26 44</td>
<td>Mean score 4.1 SD 1.0</td>
<td>Mean score 4.0 SD 1.1</td>
<td>Mean score 4.0 SD 1.1</td>
</tr>
<tr>
<td>ways to promote continence for older people.</td>
<td>n=163</td>
<td>3 6 22 38 94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4. Patients are incontinent due to laziness.</td>
<td>n=102</td>
<td>1 1 7 83</td>
<td>Mean score 4.6 SD 0.9</td>
<td>Mean score 4.7 SD 0.6</td>
<td>Mean score 4.7 SD 0.8</td>
</tr>
<tr>
<td></td>
<td>n=165</td>
<td>1 3 4 21 136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q5. It is important for all nurses to have a good understanding of</td>
<td>n=102</td>
<td>1 1 2 8 90</td>
<td>Mean score 4.8 SD 0.7</td>
<td>Mean score 4.9 SD 0.5</td>
<td>Mean score 4.8 SD 0.6</td>
</tr>
<tr>
<td>the causes of incontinence.</td>
<td>n=166</td>
<td>1 0 1 7 157</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6. Elderly people with long standing incontinence problems do not</td>
<td>n=101</td>
<td>3 2 10 24 66</td>
<td>Mean score 4.3 SD 1.0</td>
<td>Mean score 4.6 SD 0.8</td>
<td>Mean score 4.5 SD 0.9</td>
</tr>
<tr>
<td>usually require investigation.</td>
<td>n=165</td>
<td>4 12 6 29 114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q7. Incontinence is an inevitable part of the ageing process.</td>
<td>n=102</td>
<td>0 2 12 21 67</td>
<td>Mean score 4.5 SD 0.8</td>
<td>Mean score 4.4 SD 0.8</td>
<td>Mean score 4.5 SD 0.8</td>
</tr>
<tr>
<td></td>
<td>n=166</td>
<td>3 8 16 30 109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q8. Continence is a realistic goal for many incontinent people.</td>
<td>n=102</td>
<td>1 7 19 35 40</td>
<td>Mean score 4.0 SD 1.0</td>
<td>Mean score 4.1 SD 1.0</td>
<td>Mean score 4.0 SD 1.0</td>
</tr>
<tr>
<td></td>
<td>n=165</td>
<td>2 9 33 47 74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q9. Health education is as important for the older people as for</td>
<td>n=102</td>
<td>0 1 11 89</td>
<td>Mean score 4.8 SD 0.5</td>
<td>Mean score 4.9 SD 0.4</td>
<td>Mean score 4.8 SD 0.5</td>
</tr>
<tr>
<td>younger people.</td>
<td>n=166</td>
<td>0 3 15 145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q10. It find it demoralising looking after incontinent patients, since</td>
<td>n=96</td>
<td>0 9 19 58</td>
<td>Mean score 4.4 SD 0.9</td>
<td>Mean score 4.2 SD 1.0</td>
<td>Mean score 4.3 SD 1.0</td>
</tr>
<tr>
<td>there is little I can do to help.</td>
<td>n=163</td>
<td>2 13 37 95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11. Incontinence is usually more distressing for a younger person</td>
<td>n=102</td>
<td>2 10 18 63</td>
<td>Mean score 4.2 SD 1.1</td>
<td>Mean score 4.3 SD 1.1</td>
<td>Mean score 4.3 SD 1.1</td>
</tr>
<tr>
<td>than for someone who is elderly.</td>
<td>n=165</td>
<td>14 22 21 98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q12. Continence issues are an important part of nursing care.</td>
<td>n=102</td>
<td>0 1 5 15 81</td>
<td>Mean score 4.8 SD 0.6</td>
<td>Mean score 4.7 SD 0.6</td>
<td>Mean score 4.7 SD 0.6</td>
</tr>
<tr>
<td></td>
<td>n=166</td>
<td>0 1 8 19 138</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Q13. It is important to address the cause of incontinence when</td>
<td>n=100</td>
<td>4 8 9 90</td>
<td>Mean score 4.9 SD 0.3</td>
<td>Mean score 4.9 SD 0.4</td>
<td>Mean score 4.9 SD 0.3</td>
</tr>
<tr>
<td>planning nursing care.</td>
<td>n=166</td>
<td>0 0 12 154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These questions have a reversed score so that positive responses score higher and negative responses score lower.