

**Women's Experiences, Beliefs and Knowledge of Urinary Symptoms in
the Postpartum Period and the Perceptions of Health Professionals**

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Abstract

The study was developed after research with older women suffering urinary symptoms showed that many had tolerated social, psychological and hygiene effects on their lives for some time. There is evidence that some symptoms in later life may originate from pregnancy and childbirth. However, whilst there is evidence that pelvic floor muscle exercises can be effective in the short term, there is a paucity of research on the reasons why women tolerate symptoms in the postnatal period rather than seek help. It was also unclear what significance the interactions with health professionals had in aiding or suppressing help-seeking.

The aim of this qualitative study was to use grounded theory methodology to describe women's experiences and knowledge of urinary symptoms in the postnatal period and the perceptions of health professionals. Fifteen women were interviewed in the postnatal period, and one woman was interviewed twice. From the interviews and observations of antenatal clinics and postnatal groups three categories emerged; messages women receive, seeking and understanding information and responding to the messages. Views and knowledge of health professionals were obtained through two focus groups of five. From the analysis of the findings the following five categories emerged; clarifying pathways of care, clarifying education, improving communication, understanding actions and serious issues.

The core category arising from this; overcoming barriers to facilitate empowerment, revealed barriers that women and health professionals must overcome in order to approach the issue of urinary incontinence collaboratively. This study identified that there can be problems with communication at all levels between women and health professionals, resulting in poor communication regarding urinary symptoms and accessing treatment. Furthermore, superficial education regarding pelvic floor muscle exercises and dysfunction, both in the antenatal and postnatal periods, coupled with difficulties with

disclosure on a sensitive subject could be disempowering for women and health professionals. In particular, women found the possibility of an examination so soon after delivery worrying.

Normalisation was a negative but powerful influence on women, encouraged by friends and family. It is suggested that, by developing interventions that enable women and health professionals to overcome the barriers of communication and knowledge exchange, women could be empowered in relation to their physical health after childbirth to manage their urinary symptoms. Empowerment for women, therefore, with regard to postnatal urinary symptoms means being able to believe that looking after the pelvic floor is normal rather than accepting urinary symptoms after childbirth as inevitable.

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Introduction

This section outlines the reasons for the study and gives a brief overview of each chapter. The study was developed as a result of previous work with older women, many of whom had suffered urinary symptoms since childbirth and taken no action (Wagg et al 2007a). This study offered treatment to women 45-64 years of age following completion of a symptom score. A number of women were judged to need treatment based on results obtained, in addition some women indicated they had been experiencing symptoms for some time. However, despite this some women were reluctant to attend, as they did not perceive they had a problem. The current study was, therefore, planned to try to understand whether any historical factors were relevant.

Government documents such as the National Service Framework for Children, Young People and Maternity Services (DH 2004), Modernising Maternity Care (DH 2006) and Routine Postnatal Care of Women and Their Babies (NICE 2006) take little account of women's enduring health beyond the postnatal period and this appears to lead to inconsistent care, and may reduce help-seeking by women in this group. In the light of this plethora of health related policy for maternity care, it had been expected that the postnatal period would be an ideal time in which to address continence problems. As a practice nurse, consultations with women often revealed that urinary symptoms had been present for a number of years with no action being taken. Identifying possible reasons for this gave direction to the study. Firstly, from the literature it was evident that few studies had explored the qualitative aspects of bothersome urinary symptoms in the postnatal period, also little appeared to be known about the attitudes and beliefs of health professionals who may be able to influence help-seeking. This thesis documents the

process of a study drawing on grounded theory techniques and therefore has the following aims and objectives;

To describe the experiences, beliefs and knowledge of women experiencing urinary symptoms in the postnatal period and also to explore the attitudes, beliefs and knowledge regarding urinary symptoms in women of childbearing age of health professionals.

The objectives were;

- To identify existing literature on effectiveness of interventions in the treatment and prevention of stress urinary incontinence using unassisted pelvic floor muscle exercises and conduct a systematic review
- To review the existing literature on the experiences of urinary symptoms in women of childbearing age comprehensively and systematically
- To describe the experiences and beliefs of women experiencing urinary symptoms in pregnancy and post-partum
- To explore the attitudes, beliefs and knowledge regarding urinary symptoms in women of childbearing age of health professionals
- To synthesise evidence from the literature and the qualitative findings to inform future policy and practice.

Chapter 1, the background, documents existing relevant knowledge and provides the rationale for this study. The available data on prevalence, both in the postnatal period and in the general female population, are reviewed and the difficulties presented by the

variation in methods and measurement tools are discussed. Identified risk factors are explored. The available guidelines to assist nurses and midwives in assessing and treating these symptoms are reviewed.

Chapter 2 is a systematic review synthesising all available studies on the effectiveness of unassisted pelvic floor muscle exercises in both antenatal and postnatal women. The rationale for the review was to identify an effective, relatively simple, treatment that could be offered in primary care. However, although the systematic review found evidence of short-term effectiveness there is, as yet, no evidence that the improvement is maintained over time. However, research is limited in this area; there are few follow-up studies and in particular, no study has been identified that regularly reviews women to maintain momentum, it may simply be a matter of compliance in some instances. Improvement to quality of life and maintenance of independence as they age are possible gains for women, in addition cost saving to the health service in nursing care and equipment is possible. Many trials now measure the amount of bother experienced by patients, this could help to select those who may be more likely to seek help. Research that explores interventions that can increase compliance in the long term would be beneficial.

Chapter 3 details the research design and methods utilised to achieve the aims and objectives as detailed earlier in this chapter. The decision to undertake the systematic review before the interviews is discussed and justified. The chosen approach is discussed including background to the approach, data collection, analysis methods and any tensions within the design. Reflexivity and methods of ensuring quality are also explored along with any ethical issues that could arise. To explore the views of the women, qualitative interviews were undertaken using grounded theory techniques drawing on the work of

Glaser and Strauss (1967) and Charmaz (2006). A sample of 20 postnatal women was planned, 15 eventually consented. Sampling was by convenience for the first interviewee and theoretical thereafter to enlarge the data set. This allowed for constant comparison and analysis of data leading to the emergence of the core category. The findings contributed to new knowledge and understanding of the experiences of postnatal women and a possible explanatory theory for their behaviour, essential prior to designing any new intervention for postnatal women. Fifteen postnatal women were interviewed and two focus groups of five health professionals were carried out to achieve this.

Chapter 4 details the methodology and justification for methods selected and in addition other possible approaches are explored. The use of symbolic interaction as an underpinning theoretical framework is discussed.

Chapters 5-8 inclusive detail the findings and the analysis. Chapter 5 reports on the two focus groups undertaken with the health professionals. Topics discussed included knowledge of and attitudes towards urinary symptoms and each practitioner's role in identifying and treating women with urinary incontinence. Chapters 6-8 discuss the categories emerging from the interviews with postnatal women. The first emerging category; "messages women receive" is explored in chapter 6. This related to the interpretation women placed on any information they were given as well as the actual information imparted. The next chapter "seeking and understanding information" evidenced the other ways in which women gained information, and from whom, and how much importance they placed on this sort of information. Following on from this the final category "responding to the messages" explored the actions, if any, women took as a

result of the information they had received. These categories were further reduced until one core category emerged; “overcoming barriers to facilitate empowerment”.

Chapter 9 discusses the process of how the emergent concepts were synthesised to arrive at the core category. The emergent concepts were; the barriers represented by lack of clear information about pelvic floor muscle exercise and treatment, poor emphasis of the need to undertake the exercises, and a vague approach by health professionals that made asking for help much harder. It is argued that women were disempowered through the presence of these barriers and that self-caring practices would be enhanced by their removal. It is suggested that health professionals may find it helpful to adopt a more woman-centred approach as advocated throughout the policy literature. The core category is discussed in the light of symbolic interactionism.

Chapter 10, the discussion, is a synthesis of the findings from the women's related experiences of postnatal care and urinary symptoms and a range of related published research, both national and international. The emerging theory from this synthesis is that for women, childbirth is a major life change that is part of the culture they live in and there are certain expectations of this process which conflict with the reality they encounter. They remain reluctant to question this for cultural reasons unless specifically asked and struggle to separate out individual symptoms when trying to come to terms with the changes in their lives. Society and health care does not seem to do anything to dispel these feelings. The issue of researcher reflexivity was reviewed again to incorporate any new information that emerged during analysis. This was followed by a discussion of the policy response to the issues both nationally and locally over time. Despite a number of attempts to reorganise maternity services (National Service Framework for Children,

Young People and Maternity Services DH 2004, Modernising Maternity Care DH 2006, Routine Postnatal Care for Women and their Babies NICE 2006) research continues to be critical of maternity care, particularly in the postnatal period. Looking more specifically at urinary problems; Urinary Incontinence the management of continence in women (NICE 2006a), Cochrane Reviews of pelvic floor muscle exercises (Hay-Smith and Dumoulin 2006) and treatments for urinary incontinence in men and women (Hay-Smith et al 2002) provide guidance for practitioners. A health technology assessment has reviewed methods of assessment (Martin et al 2006) and guidelines also exist for assessment and treatment in primary care (Button et al 1998).

In the final section the practice response is discussed, in particular the complexities of educating both women and health professionals to produce cohesive care within constraints of time, funding and awareness. There has been a lack of clear guidance in some areas and extra funding was often short-lived when new changes were implemented. Frequent changes in care policy coupled with lack of funding for adequate staffing levels has meant that midwives struggle to give the level of care envisioned by government documents. In primary care there are also conflicts between time available and other priorities. Practitioners often do not have relevant skills or awareness of evidence and research studies have found practitioners do not always follow guidelines (Roe and Doll 2000). The reasons for this need further exploration. In addition there appeared to be sparse care provision in primary care for urinary symptoms at any age. Practitioners are often unaware of the roles and responsibility of other practitioners and advice offered to women either antenatally or postnatally may, therefore, be erratic. There appears to be evidence that women may, at times, be some way into the postnatal period

before there is any discussion with a health professional about the importance of pelvic floor muscle exercises.

Chapter 11, the conclusion, brings the work together, critically evaluating the study. It is suggested that much more could be done in primary care and that pelvic floor muscle education from midwives should be considered and emphasised. Direct, specific questions would aid disclosure from women regarding their symptoms. Women should be empowered to take care of their pelvic floor muscles and general health and well-being. However, there is a lack of enablement for both women and health professionals and this is a major issue. The probability of enduring symptoms may be reinforced by friends and family and the lack of positive encouragement from health professionals further dispirits the women. Women may at times be reluctant to undergo further physical examination after delivery. In addition, education regarding the pelvic floor could be commenced much earlier, for example, in school. This is very different to the originally expected findings; it has become clear that no one intervention provides the answer and that a variety of approaches may be more appropriate.

Background to study

1.1 Introduction

This thesis was inspired by previous work with older women with urinary incontinence as briefly alluded to in the introduction (Wagg et al 2007a). This study aimed to assess the impact of self-help versus structured help from a continence nurse specialist in women with undiagnosed urinary problems in primary care. The women were identified using the Female Urinary Symptom Score (FUSS). A total of 1175 women participated in the study and were categorised at baseline into mild (n= 764), moderate (n=325) and severe (n= 86). There were significant reductions in mean FUSS score, -1.2 points (95% CI -2.2 to -0.2) in women with moderate symptoms and -7.8 points (95% CI -11.1 to -3.5) in women with severe symptoms following the intervention. There was correlation between quality of life and measured symptom severity; 67.4% of women with severe symptoms recorded a high negative effect on quality of life (95% CI 57.1-76.3). None of the women who took part in the intervention had previously sought help for any symptoms. The study identified that simple treatment in primary care could be effective and the single page questionnaire had the potential to identify women who may benefit from intervention.

Glaser and Strauss (1967) stress the importance of the researcher not becoming oversensitised to the literature, stating that the researcher should be only sufficiently familiar with the literature to conceptualise and formulate a theory as it emerges. However, the researcher is already unavoidably sensitised due to the previous work and this raises an issue for the practitioner/researcher. This conflict is discussed later in the thesis.

Indeed, in order to develop the research proposal, be clear why the study was relevant and address the primary research questions as defined by the study aims and objectives it was important to undertake a brief overview of the relevant literature. The literature review was further consolidated after data collection was completed.

A qualitative approach was appropriate to explore women's attitudes and experiences. However, there was also a need to attempt to understand the rationale for women's actions in certain circumstances and therefore choice of approach was given careful consideration and this is discussed in chapter 3.

In this chapter the data on prevalence in the general female population are reviewed, followed by the data on prevalence in the postnatal period. Previous research with older women experiencing urinary symptoms had identified reluctance to seek help for ongoing symptoms (Wagg et al 2007a). A brief explanation of the physiological changes occurring in pregnancy follows, this provides background for the exploration of risk factors. The data on risk factors are also reviewed to justify theoretical sampling. Finally, available guidelines with regard to teaching pelvic floor muscle exercises, and assessing and offering treatment to women with urinary symptoms were reviewed, these demonstrated a need for more research into the implementation of effective assessment processes. The effectiveness of current available treatment using unassisted pelvic floor muscle exercises in both the antenatal and postnatal periods has been assessed in the systematic review (Chapter 2). This background chapter does not seek to give an exhaustive view of the literature available, but rather to give the reader a sense of the dimensions of the issues raised by the proposed aims and objectives.

1.2 Operational definitions

For clarity some of the terminology that is used in this thesis is defined here. Stress incontinence, is defined as “the complaint of involuntary urinary leakage on effort or exertion, or on sneezing or coughing” (Abrams et al 2002). Women may also experience urgency (a sudden compelling desire to pass urine which is difficult to defer), leading to urge incontinence (involuntary leakage accompanied by or preceded by urgency), or women may experience a mixture of the two (Abrams et al 2002). The terms “bothersome” or “bother” are increasingly used when referring to symptoms (Kinchen et al 2007, Perry et al 2000), this may be defined as the burden or need felt by the women with regard to coping with personal symptoms, and may differ from clinically significant symptoms. It is thought the impact of symptoms on lifestyle may influence help-seeking strategies; women do not necessarily see urinary symptoms as a problem (NICE 2006a). Symptoms that relate to difficulties retaining urine in the bladder are referred to as storage symptoms (Abrams et al 2002). The postnatal period is defined as the six weeks following delivery (NICE 2006), but this may be extended to eight weeks if there are ongoing problems at that stage. However, it is thought that improvement in urinary status may occur up to twelve weeks after delivery and it is suggested that only women still experiencing symptoms at twelve weeks should be referred for specialist assessment (NICE 2006). In addition, some research studies include women at later stages after delivery in order to assess continuing problems and this can be confusing. Prevalence is the number of people with a particular condition at the time of the enquiry, this may be within a given time (e.g. last month) or on a particular day (point prevalence) compared to the rest of the population, whereas incidence is the number of new cases since a particular time point (Gordis 1996).

1.3 Prevalence of urinary symptoms

This section is in two parts and reviews the data on prevalence both in the general female population and in the postnatal period. The following databases were searched; Medline (1966 onwards), PubMed (1966 onwards), Embase (1974 onwards), CINAHL (1982 onwards), British Nursing Index (1994 onwards) and Proquest medical and nursing libraries (1950 onwards) using the search engines Ovid, Datastar and Proquest. The Cochrane Library (issue 4, 2008) was also searched. Worldwide papers since 1995 were considered for each section.

1.3.1 *Prevalence in the general female population*

Sixteen papers were reviewed on prevalence of urinary symptoms in women of any age. Appendix 1 combines the prevalence of urinary symptoms in the general population and in postnatal women, with the research available on risk factors in a table, to facilitate easy reference. Search terms were; prevalence combined with incontinence and then combined with women and urinary. Four studies were undertaken in the UK (McGrother et al 2004, Roe and Doll 2000, Perry et al 2000, Swithinbank et al 1999), six in the USA (Nygaard et al 2008, Minassian et al 2008, Kinchen et al 2007, Carls 2007, Thom et al 2006, Fultz et al 2005), two in Norway, (Hunskaar et al 2004, Hannestad et al 2000), one in Denmark (Foldspang et al 1999), one in Sweden (Samuelsson et al 1997), one in Korea (Choo et al 2007) and one in Australia (MacLennan et al 2000). Age groups were mostly adult i.e. > 18 or 20, but Carls (2007) looked at 14-21-year-old female students, Thom et al (2006) surveyed 40-69 year olds, Perry et al (2000) and McGrother et al (2003) looked at over 40-year-olds and Choo et al (2007) researched over 30-year-olds. All studies were analysed by individual symptoms apart from Carls (2007) who investigated stress incontinence alone. Symptoms were also analysed by separate age

bands for most studies, excepting Fultz et al (2005) and Carls (2007). Five studies used the same measurement tool; the incontinence severity index (Sandvik et al 1993). Four studies also included men (Roe and Doll 2000, Perry et al 2000, McGrother et al 2004, MacLennan et al 2000). Where possible information regarding females only is reported, however, Perry et al (2000) and McGrother et al (2004) combined men and women in some statistical analysis.

Of the four UK studies, Swithinbank et al (1999) conducted a postal survey of urinary symptoms in the last month with 2641 participants over 19-years-old in one general practice. They used an internationally recognised and validated questionnaire (B-FLUTS, Jackson et al 1996), had a good size sample and a response rate of 80%. However, using only one general practice may mean the sample is less representative of the general population. A total of 1414 (69%) reported some symptoms, but only 578 (30%) considered them to have an impact on life. From the 60% (1229) of women complaining of stress urinary incontinence, 42% (500) thought it was a bit of a problem and 9% (103) perceived it a real problem. The remaining 49% (594) did not consider the level of symptoms experienced a problem. The prevalence showed an upward trend with age ($p = <0.001$ for linear trend) and women were more likely to find symptoms a bother with increasing age, although it is not stated whether this was significant or not. When the International Continence Society (ICS) definition of incontinence (Abrams et al 1988) was applied to the data, the prevalence rate was reduced to 30% (95% CI 28%-32%). However, at the time the ICS definition included considering the symptoms a social and hygiene problem, this part was removed in 2002 and it is possible that the two measurements may not be so different were they to be repeated with the new ICS definition. In addition, Morkved and Bo (1999) infer that that definition of incontinence may

not be appropriate for newly postnatal mothers who have not returned to normal life as yet.

The second UK study included both men and women in two different health authorities (Roe and Doll 2000). Overall 9% (519) indicated that they had current symptoms and 23% (1427) had experienced incontinence at some time. Significantly more women than men were currently incontinent ($p = <0.0001$), 11.3% (378) of the women compared to 5.3% (141) of men. Incontinence was more common in older people ($p = <0.0001$) and those from the health authority that did not have a continence service ($p = <0.0009$). However, the response rate in this study was only 53% (6139) and there were some false negatives (6%) identified when the respondents completed six further Likert style questions regarding specific symptoms. This highlights the difficulty of getting the right measurement tool to achieve a balance of sensitivity and specificity. Lower response rates may occur with postal questionnaires, in addition, possible participants may have also received questionnaires on other topics or be unsure where the questionnaire originated which may further reduce response rates. When sensitive information is requested the recipient needs to be aware the source is official. In this study there was a higher response from the participants in the health authority that had a continence service, it is possible this may be attributed to local knowledge of the service. False negative responses were also found in a postnatal study (Morkved and Bo 1999) possibly indicating that some women do not consider some of the symptoms as abnormal or are not bothered by them. Women who are not bothered by symptoms may not see a need for treatment. This has implications for response rates in trials of interventions (Harrison and Memel 1994, Wagg et al 2007a).

The third UK study was a cross-sectional postal epidemiological study in Leicestershire, funded by the Medical Research Council (Perry et al 2000). The questionnaire included general health items, urinary and bowel symptoms and demographic detail. The response rate from the women was 72.4% (5544). A prevalence of 38.8% was reported for any urinary symptoms in women and 20.2% for any urinary incontinence. Of those reporting incontinence 8% found the symptoms bothersome, 3.2% experienced a lot of bother and 7% reported symptoms as a problem. However, about a third expressed a desire for help, indicating that a proportion of those not considering the symptoms bothersome would also ask for help. Confidence intervals are reported for the combined male and female groups only. Stress incontinence is common, however, in this study limited data are available and measures of significance are not reported.

A further larger study from the same team (McGrother et al 2004) looked in detail at the prevalence, incidence and need for services for storage symptoms. The study included men and women over the age of 40 and 62.7% (50,002) of the women responded to the prevalence study. Incontinence symptoms are divided into profound, severe, moderate and minimal and for the women the following percentages applied respectively; 3.5%, 11.8%, 7.3%, 11.6%. There was an 8.8% incidence of new urinary incontinence at one year, and a 25.2% of remission of symptoms. Epidemiological studies have found that there may be remission and recurrence in women in relation to certain life events such as the menopause, chronic illness and ageing (Moller et al 2000). However, the data on remission are extremely limited and it is therefore difficult to predict the natural history of urinary incontinence (Bump et al 1998). Women were more likely to seek other means of dealing with symptoms (such as pads) than men (20% versus 14%) but consultation rates were similar (13% versus 12%) which would seem to indicate that women were more

likely to try to control or even hide the situation than men. However, consultation rates for both men and women were low and this is not uncommon (Mason et al 2001, Ashworth and Hagen 1993). As with the study by Perry et al (2000) reporting of statistical analysis is limited and where reported both sexes are combined. In addition, stress incontinence is not reported separately. Both these studies had large samples with a large age range which will reduce sampling errors. The team also published a paper on non-response bias and identified the fact that, although both groups were similar, more non-responders over 70 years described themselves as less healthy (OR 1.53, 95% CI 1.07-2.20) and more reported urinary symptoms including urge leakage (OR 2.59, 95% CI 1.00-2.34) and frequency of micturition (OR 2.27, 95% CI 1.4-3.67) (Dallosso et al 2003).

Two studies (Nygaard et al 2008, Minassian et al 2008) used the National Health and Nutrition Examination Survey, undertaken regularly in the USA in those over the age of twenty. In one study (Nygaard et al 2008) they obtained permission to add questions relating to pelvic floor muscle disorders. From an original sample of 3440 surveyed in 2005/2006, 2592 (75.4%) agreed to take part and 2489 (72.4%) agreed to take part in an additional interview (Nygaard et al 2008). This included the use of the incontinence severity index, plus an interview and examination. After excluding women currently pregnant and those with missing data on all three pelvic floor muscle disorders being investigated (prolapse, urinary incontinence and faecal incontinence) the final number analysed was 1961 (57%). The prevalence of urinary incontinence was 15.7%, and risks increased with age ($p = <0.001$), increased parity ($p = <0.001$) and body mass index ($p = <0.001$). The addition of an examination was beneficial as this allowed those women with pelvic organ prolapse to be identified; this may be responsible for urinary incontinence but is usually treatable.

Using the same survey but the 2001/2002 data, Minassian et al (2008) undertook a study with a sample of 2875. The survey, which was completed by 2577 (90%), included three extra questions asking about urinary symptoms in the last twelve months and looked specifically for types of incontinence rather than general symptoms. There was an overall prevalence of 49.2% (1269) for any symptoms, of which 23.7% (610) were stress incontinence, 9.9% (254) were urge incontinence, and 14.5% (373) were mixed incontinence. The remaining 32 participants had other problems such as pelvic organ prolapse. The study showed a significant level of stress incontinence in the 40-49 age group (adjusted OR 3.60, 95% CI 1.8-6.55) and in the 50-59 age group (adjusted OR 2.63, 95% CI 1.27-5.46). Obese patients were significantly more likely to have mixed incontinence than non-obese participants (adjusted OR 3.65, 95% CI 1.45-9.18).

Two studies in the USA used information from a large health questionnaire sent to members of a private health care scheme (Kaiser Permanente). Thom et al (2006) looked at the differences in prevalence by race and ethnicity in 2109 (65.1%) women aged 40-69 years. All participants completed a questionnaire and a severity index was completed for those with incontinence. Hispanic women had a significantly higher age adjusted prevalence of weekly incontinence at 36%, with white women second at 30%, black women third at 25% and finally Asian-American women with 19% ($p < 0.001$). After adjusting for parity, age, body mass and other medical issues, black and Asian-American women still had lower risk of stress urinary incontinence (adjusted OR 0.36, 95% CI 0.23-0.57, and 0.54, 95% CI 0.34-0.86 respectively). It is not currently understood why this should be, the groups were of similar sizes and were representative of the population. In contrast, the USA study previously discussed (Minassian et al 2008) found white women

were more likely to experience incontinence of any severity than Hispanic or black women. It is difficult to identify a reason for this discrepancy although they used different measurement tools and enquired about symptoms in different time intervals. The samples of different races in both studies were about 25% of the total and were otherwise similar (Minassian et al 2008, Thom et al 2006).

A later study from the same health care scheme measured the amount of bother experienced by participants in a questionnaire survey of 3344 (49.7%) women (Kinchen et al 2007). When questioned regarding incontinence in the last seven days, 44% of the sample admitted to symptoms. Of these, 42% had stress urinary incontinence, 12.7% had urge incontinence and 43.4% had mixed symptoms. The level of bother experienced by those with mixed symptoms was significant at 77%, compared with urge at 51.1%, and stress at 49.8% ($p \leq 0.001$) and these patients were three times more likely to have urinary incontinence diagnosed than those experiencing no bother ($p = <0.0001$). This highlights the importance of analysing symptoms individually when identifying groups most at risk. Accessing information from large surveys such as the previous six can provide helpful data regarding other variables such as smoking, weight and race which may prove relevant. Response rates may also be better as the survey is undertaken annually with a large sample and is likely to be well known.

Another USA study, with a response rate of 66%, surveyed working women aged from 18 to 60 years to assess the prevalence of incontinence and the impact of urinary incontinence in the workplace. The author suggested that 4% of women made decisions about employment on the basis of personal symptoms, including changing the type of work they did, working fewer hours or choosing to work at home (Fultz et al 2005). Of

those who responded to the postal questionnaire, 37% (867) reported incontinence in the past month with 8% having daily symptoms. Most common, as has been found in many other studies, was stress urinary incontinence at 52%, followed by mixed symptoms at 37% and urge incontinence at 10%. The severity index used to assess impact also highlighted the fact that the greater the severity, the greater the negative effect on concentration at work ($p = <0.001$).

In a small study of female college athletes aged between 14 and 21 years (Carls 2007), only 171 of an intended 550 questionnaires were distributed. However, a response rate of 50.2% (86) was achieved from those that were distributed. The tool used was adapted from the Bristol Female Urinary Tract Symptom questionnaire (B-FLUTS, Jackson et al 1996) but not revalidated. Results cannot, therefore, be assumed to be reliable or comparable to studies using the original version. Stress incontinence was reported by 28%, of these 26% also had urge incontinence, and 16% felt it had a negative effect on their quality of life. No statistical analysis appears to have been undertaken, this should still have been possible even though the sample number was lower than initially planned. Other researchers have identified similar results (Thyssen et al 2002) and had analysis and validation been undertaken in this study comparison would have been possible.

Prevalence was measured in the EPINCONT study, a Norwegian study which was part of a larger general health survey (Hannestad et al 2000). A sample of 27,936 (80%) women completed a questionnaire to assess symptoms and a validated severity index to assess severity (Sandvik 1993). A total of 6876 (25%; 95% C I 24.1%-25.2%) women had some incontinence, of these 50% had stress urinary incontinence, 11% had urge and 36% had mixed symptoms. The mean age was greater at 53.2 years for the incontinent women, the

prevalence continued to rise with age and a peak was observed in stress incontinence at around 50 years of age, which may relate to the menopause. The EPINCONT study further identified a dip in prevalence before a steady rise again at around the age of 70 (Hunnskaar et al 2004). There was a significant correlation between measured severity and the rating of incontinence as a problem by the participant ($p = <0.01$).

A large study measured prevalence in four European countries, reporting an overall prevalence in the last 30 days of 35% (5976) and a mean age of 46.3 years in respondents (Hunnskaar et al 2004). The response rate was 58.1% and employed a 13 item postal questionnaire which was also used by Fultz et al (2005). The prevalence was significantly lower in Spain at 23% (1415), ($p = <0.001$), with the UK, France and Germany being similar at 42% (1231), 44% (1714) and 41% (1576) respectively. The survey also found that women in France and Germany were more likely to consult ($p = <0.001$) and to have a diagnosis made ($p = <0.001$). Symptoms increased with age, particularly mixed symptoms. The study concluded that a lot of women do have symptoms, but only approximately 30% seek help. The reasons for the prevalence being so much lower in Spain were discussed. Cultural factors including acceptance of symptoms or greater embarrassment may have been relevant. All groups were of a similar age and the same methodology was used. It could be possible that cultural differences may play a part, either in encouraging under-reporting or acceptance. In addition, misinterpretation of the translated questionnaire may have occurred.

A postal questionnaire in Denmark achieved a response rate of 69.6% (4345) after currently pregnant women and women who had given birth in the previous year were excluded (Foldspang et al 1999). The study included women aged 20-59 years and the

questionnaire requested symptoms in the last year. The prevalence of stress urinary incontinence was 15.1%, urge incontinence 8.7% and mixed incontinence 6.8%. There was an increase in overall incontinence with age; the age group 20-29 years showed a prevalence of 9.6%, by 50-59 years it was 32.4%; (OR = 1.4 per 10 years, $p = 0.000001$). A total of 2717 (62.5%) women had given birth vaginally at least once and the prevalence of all urinary incontinence was higher in these women than the other women in the sample (22.9% versus 9.0% $p \rightarrow 0$). Urinary incontinence during pregnancy was the strongest predictor of urinary incontinence after childbirth ($p = <0.0001$). Episiotomy ($p = 0.0001$), perineal suturing ($p = 0.0001$) and instrumental delivery ($p = <0.005$) all showed a strong association with incontinence after delivery. The study concluded that pregnancy and childbirth were the important factors in predicting urinary incontinence.

Another postal questionnaire was administered to women scheduled to attend a gynaecological examination over a one year period in primary care in Sweden (Samuelsson et al 1997). There was a 77% response rate (491) and of these 27.7% (136) reported some incontinence, with 3.5% (17) revealing daily symptoms. There was a prevalence of 15.7% for stress urinary incontinence, with incontinence significantly related to parity ($p = 0.29$), age ($p = 0.001$), and smoking ($p = 0.013$). The more frequent the episodes, the greater negative effect on perceived bother ($p = <0.0001$), although there was no significant difference between types of incontinence (urge incontinence ($p = 0.94$), stress incontinence ($p = 0.30$)).

In Korea a telephone interview study was undertaken asking for any history of incontinence and frequency of episodes (Choo et al 2007). The age range was 30-79 and 1303 (86.9%) agreed to the interview. A high overall prevalence of 40.8% (532) was

reported, although this study was unusual in that prevalence did not increase with age. It is not clear why this should be or whether it could be attributed to racial or cultural differences. Urge and mixed symptoms had a greater impact on daily life ($p = <0.001$), social life ($p = <0.001$) and quality of life ($p = <0.001$) than stress incontinence.

The last study reviewed in this section was conducted in South Australia surveying a representative population of 4440 households and interviewing 3010 adults between 15-97 years, using a general household survey administered in the home (MacLennan et al 2000). A response rate of 73.3% (3010) was achieved of which 53.3% (1546) were women. While interviews in the home are more time consuming and expensive than postal questionnaires they have the advantage that questions can be clarified if not understood and, where necessary, answers verified. Any urinary or faecal incontinence in the last month was recorded. The overall prevalence of any urinary incontinence in women was 35.3% ($p = <0.001$), the highest level was in the age group 70-74 at 51.9%. Both urinary and faecal incontinence were more common in women than men, even in nulliparous women who experienced stress symptoms four times more commonly than men ($p = <0.01$). The reason for this is uncertain, the author suggested that it was possible that there may be an association with any pregnancy and urinary incontinence even if it did not go to term, but this study did not include data on women who had pregnancies that were lost before 20 weeks gestation. However, mode of delivery did increase prevalence; caesarean section 43%, spontaneous vaginal delivery 58%, previous instrumental delivery 64%, compared to nulliparity at 12.4% ($p = 0.01$). Higher body mass was significantly associated with urinary incontinence ($p = 0.001$).

In summary, a wide prevalence was reported in the studies, from 11.3% (Roe and Doll 2000) to 69% (Swithinbank et al 1999). The time span for symptoms was very different; three trials asked for symptoms “ever” (Choo et al 2007, Nygaard et al 2005, Perry et al 2000), two asked about current symptoms (Roe and Doll 2000, Samuelsson et al 1999), three asked for symptoms in the last month (Fultz et al 2005, Hunskaar et al 2004, Swithinbank et al 1999), five requested symptoms in the last twelve months (Minassian et al 2008, Thom et al 2006, McGrother et al 2004, MacLennan et al 2000, Foldspang et al 1999) and the remaining three asked “have you any symptoms” (Carls 2007, Kinchen et al 2007, Hannestad et al 2000). The reporting of symptoms at specific time points would be more reliable otherwise, for example, a woman who had transient incontinence some time ago and not since could be included. However, grouping the studies according to frequency of symptoms asked still revealed wide variation. Even when the same measurement tool was used, there was variation from 19% (Thom et al 2006) to 37% (Fultz et al 2005). Four studies used the severity index (Sandvik 1993) as part of the enquiry (Nygaard et al 2008, Thom et al 2006, Fultz et al 2005, Hannestad 2000). Two studies had both used another questionnaire (Ewings et al 2005, Carls 2007), the Bristol Female Lower Urinary Tract Symptoms questionnaire (B-FLUTS, Jackson et al 1996), one of the authors had adapted it and this version was not validated (Carls 2007).

1.3.2 *Prevalence in postnatal women*

Prevalence studies conducted in the postnatal period were searched for using the key search terms; “prevalence” and/or “urinary” with “incontinence” and “postnatal” or “postpartum” or “delivery” or “pregnancy” or “childbirth” in title or abstract. Eight papers were reviewed, two conducted in the UK (Mason et al 1999, Mayne et al 1995), two in the USA (Thomason et al 2007, Burgio et al 2003), one in Norway (Morkved and Bo 1999),

one in Canada (Farrell et al 2001), one in New Zealand (Wilson et al 1996) and one in the Republic of Ireland (Marshall et al 1996). Four studies measured one time point only; Mayne et al (1995) at seven weeks postnatal, Morkved and Bo (1999) at eight weeks postnatal, Wilson et al (1996) at twelve weeks postnatal and Farrell et al (2001) at six months postnatal. Four studies measured more than one time point; Thomason et al (2007), between 35-40 weeks gestation (completed retrospectively) and six months postnatal, Burgio et al (2003), at six weeks, three months, six months and twelve months postnatal, Mason et al (1999) at 34 weeks gestation and eight weeks postnatal, and Marshall et al (1996), who measured symptoms at 2-3 days postnatal, three months and nine months postnatal. In addition three studies investigated symptoms in primiparae only (Mayne et al 1995, Farrell et al 2001, Thomason et al 2007).

Prevalence between six and eight weeks postnatal was as follows: 11.36% (Burgio et al 2003), 19% (Mayne et al 1995), 40% of primiparous women and 36% of multiparous women (Morkved and Bo 1999), and 31% (Mason et al 1999). At twelve weeks prevalence was 9.3% (Burgio et al 2003), 34.3%, (Wilson et al 1996) and 63% (Marshall et al 1996). The three studies that measured prevalence at six months found levels of 10.5% (Burgio et al 2003), 26% (Farrell et al 2001) and 47% (Thomason et al 2007). Prevalence at nine months was 33% for Marshall et al (1996), there was, however, a very low response rate of 40% to this follow-up questionnaire. Finally, the only study to measure prevalence at twelve months reported a prevalence of 13.25% (Burgio et al 2003). Two studies also measured incontinence antenatally (Thomason et al 2007, Mason et al 1999) finding a prevalence of 16% during pregnancy in those continent before pregnancy and 78% in those incontinent before pregnancy and 59% (at 39 weeks gestation) respectively. Further detail regarding the papers reviewed now follows.

A study of 1008 women in Liverpool looked at stress incontinence during pregnancy and postnatally (Mason et al 1999). The response rate was 71% (717) with the mailing at 34 weeks gestation and 57% (572) from the second mailing at eight weeks postnatal. The measurement tool asked about leakage under stress, frequency of leakage and necessary containment measures. Stress incontinence was reported by 59% (419) of the women antenatally, by eight weeks postnatal this was 31% (179), with 2% reporting daily occurrence. There was a statistically significant association between increased parity and stress incontinence ($p = 0.009$) and the higher the parity the greater the risk of stress incontinence ($p = 0.01$) but there was a decreased risk of incontinence in women who had a lower segment caesarean section ($p = 0.009$) or those experiencing their first delivery ($p = 0.001$).

A brief report by Mayne et al (1995) reports a survey of women questioned when attending for postnatal examination at a general practitioners surgery. The questionnaire has only two questions relating to urinary symptoms; a yes/no answer to "do you have any bladder problems" and an enquiry as to when it started. The authors report that 565 women took part in the study, but that as the multiparous women were different to the primiparous women in terms of maternal age, weight of baby and mode of delivery, they were not included in any further analyses. Thus the paper fails in its basic aims; to determine the incidence of postnatal bladder problems and to investigate significant aetiological factors. Information had been gathered on the multiparous women (52% of the sample) and could have been analysed separately as other authors have (Marshall et al 1996). It appears that this was a decision made on an adhoc rather than a priori basis as neither the introduction nor the title reflect this approach. A total of 272 women were

primiparous and 19% reported “bladder problems”, although how the women and researchers interpreted this vague statement is unknown. Of these 272 women, 4% started symptoms before pregnancy, 44% during pregnancy, and 52% after delivery. There was a statistically significant increase in urinary problems with higher maternal age ($p = 0.04$) and also in women who had an instrumental delivery versus a spontaneous vaginal delivery ($p = 0.02$). There was no statistical difference between those having a caesarean section and those having a normal delivery.

A study undertaken by physiotherapists in Ireland found an overall prevalence of 59% for any leakage at all in a sample of 2062 women, the first to respond in a larger study of 5500 women (Marshall et al 1996). Symptoms were experienced by 49% (422) of the primiparous women and 65% (789) of the multiparous women. At three months postnatal 63% (152) of the women still had some symptoms, and by 9 months postnatal this had reduced to 33% (72). The study also found 11% (46) of primiparous women and 44% (255) of multiparous women were already leaking before the index pregnancy in addition as parity increased there was a significant increase in leakage in pregnancy ($p = 0.0001$). The follow-up response rate was only 45% at three months and 40% at nine months, in addition the questionnaire was short and mostly yes/no answers with no real measure of severity. Also the data were not analysed by type of delivery, this would have added further information on the difference in the rates of incontinence between primiparous and multiparous women.

Another paper reported the recruitment of 1505 (70.5%) women returning questionnaires mailed at twelve weeks after delivery (Wilson et al 1996). The questionnaire is not shown but the author states that information regarding prevalence, type and frequency of urinary

incontinence and performance of pelvic floor muscle exercises was obtained. Results revealed that 34.3% (516) of women had some problem at twelve weeks with 3.3% of them reporting a daily occurrence. Prevalence of stress urinary incontinence was highest at 23.3% while 14.9% of women reported urge incontinence. Some of the women had had incontinence before the pregnancy; 8.4% (51) of the original total and 19.4% of those reporting incontinence at twelve weeks. Daily performance of pelvic floor muscle exercises was reported by 25% of the women. Again, there was a significant reduction in prevalence amongst those women undergoing lower segment caesarean section ($p = 0.02$) with 24.5% (49) of women undergoing a vaginal delivery and only 5.2% (3) of women undergoing a lower section caesarean section having stress incontinence. Practising pelvic floor muscle exercises was significantly related to having incontinence, women were much more likely to start or increase the frequency if they were incontinent ($p = 0.012$). This may indicate that the women are being reactive rather than pro-active and do not consider their urinary status until there is an issue.

Burgio et al (2003) interviewed a convenience sample of 523 women on five separate occasions starting 2-3 days after delivery and continuing to twelve months postnatal. The first interview obtained demographic information, details of delivery type, urinary symptoms and attendance at antenatal classes. Subsequent interviews recorded all symptoms, the frequency, effect on lifestyle and performance of pelvic floor muscle exercises. The prevalence at the selected time points were as follows: six weeks 11.36% (56), twelve weeks 9.32% (45), six months 10.51% (47), and finally twelve months 13.25% (51). Over half were somewhat or extremely affected by the symptoms. Although the final prevalence was not dissimilar to other time points, the mean frequency of accidents had gone down from 15.9 to 4.8. However, other authors have suggested that a

reduction in accidents could indicate that the women had now adopted coping strategies or were in remission, either spontaneously or as a result of undertaking pelvic floor muscle exercises for a period (McGrother et al 2004, Moller et al 2000). In addition, certain illnesses or medications may also have transient effects on continence (Dillon and Fonda 2000). Burgio et al (2003) also undertook multivariate analysis to adjust for vaginal birth, forceps, smoking, breast-feeding, body mass index and incontinence in pregnancy. Of the obstetric factors assessed vaginal delivery doubled the risk of urinary symptoms ($p = 0.002$) as did the use of forceps ($p = 0.024$); no other obstetric issue seemed to be a risk factor. Self-reported frequency of urination was the biggest predictor of postnatal incontinence ($p = <0.001$) and incontinence during pregnancy was also significant ($p = 0.007$). Other non-obstetric risk factors included smoking, presumably because of the chronic cough ($p = 0.002$), longer time breast-feeding ($p = 0.023$) which is thought to be related to hormone levels, and higher body mass index ($p = 0.005$).

The relationship between urinary incontinence in pregnancy and after delivery in primiparae has been studied (Thomason et al 2007). Women who had no incontinence before pregnancy were recruited from a larger study investigating vaginal delivery and stress incontinence. They were divided into two groups, those currently continent (64) and those currently incontinent (57). Of the continent group, 16% had leaked in pregnancy (70% frequently) and of the incontinent group, 78% had leaked in pregnancy. Therefore, the women who had incontinence in the postnatal period were five times more likely to have also leaked in pregnancy.

A further study involving primiparous women was conducted over a three year period (Farrell et al 2001). Of 690 women initially recruited at antenatal clinics, 595 delivered at

the study hospital. The prevalence of any incontinence was 26% at six months. The questionnaire used is not shown but a good description identifies it as detailed and each one was completed with a research nurse. Detailed analysis of all aspects of delivery was undertaken. At six months postnatal there were differences in incontinence between types of delivery; caesarean section (10%, 11), spontaneous vaginal delivery (22%, 50), and forceps (33%, 24). Vaginal delivery increased risk of urinary incontinence compared to lower segment caesarean section at six months (RR 2.1, 95% CI 1.1-3.7), and the risk was further increased where forceps were used (RR 3.1, 95% CI 1.7-5.9). When compared with vaginal delivery, the use of forceps still increased the risk of incontinence (RR 1.5, 95% CI 0.6-2.5). In addition, urinary incontinence before pregnancy showed a statistically significant increased risk of incontinence at six weeks (RR 2.7, 95% CI 1.5-4.9) and six months (RR 2.3, 95% CI 1.8-3.0). Women who also experienced flatal incontinence were also at increased risk at six weeks (RR 2.6, 95% CI 1.2-5.5) and six months (RR 2.8, 95% CI 2.1-3.5). No other obstetric risk factors were identified. This was the only study to supply information on power calculation.

Morkved and Bo (1999) undertook a study of the prevalence of urinary incontinence during pregnancy and after delivery. An interview and clinical assessment was carried out on 144 women (72% response rate) at eight weeks postnatal. The prevalence of urinary symptoms in pregnancy was 42% using the question; do you leak urine at any time: never, seldom, weekly or daily? The women were also asked about other types of incontinence and other issues such as performance of pelvic floor muscle exercises and breast-feeding. At eight weeks the prevalence was 38%, although only 19% had a positive pad test. Of those who had a positive pad test, 21 (15%) also reported incontinence while seven did not. If both self-reported and objectively demonstrated

incontinence were added together the prevalence at eight weeks was 42% (60). Comparing symptoms in primiparous women (40%, 21) to multiparous women (36%, 33) the difference was not significant ($p = 0.05$). Also this study found no significance between those who had symptoms during pregnancy and those who did not, however p values were not stated. Both these last facts are at odds with previous studies, however, it was also the most thorough, using pad tests, urodynamics (for 35% of those incontinent), and measuring pelvic floor muscle strength. The remaining 65% of those who were incontinent refused urodynamics, this can be an ordeal for some and may have adversely affected response rates.

In summary, there is wide variation in prevalence of urinary symptoms even at similar time points. All the eight studies used a questionnaire but only three included full details of it in the paper and none used an internationally recognised and validated tool. Sample sizes varied from 121 (Thomason et al 2007) to 2134 (Wilson et al 1996). Studies using retrospective questionnaires can be more susceptible to bias because of the potential for inaccurate recall, which may affect reliability and validity (Bowling 1997). In addition one study asked about stress incontinence alone (Mason et al 1999) and only one study analysed different symptoms separately (Wilson et al 1996), the remainder gave one figure for all symptoms together. Three studies included only primiparous women (Thomason et al 2007, Farrell et al 2001, Mayne et al 1995).

1.3.3 Conclusion

In conclusion this section has shown the variability of reported prevalence in both postnatal women and the general female population. Variations in study methodology and quality, including differences in populations, response rates, measurement tools and

analysis of specific symptoms may affect results. Even when measurements were taken at similar times or with the same tool there was great variation and in addition, sample sizes varied greatly. Most studies appeared to agree that there was an issue with continence after delivery which increased with parity and that the type of delivery and continence level before pregnancy increased prevalence. Until standardised tools and timescales are used it is not possible to say with any certainty the prevalence of urinary symptoms in women.

1.4 Physiological changes in pregnancy

The pelvic floor acts as a sling or support for the pelvic organs and has three layers; the endopelvic fascia, the levator ani muscles (often referred to as the pelvic diaphragm) and the perineal membranes (Keane and O'Sullivan 2000). This is shown diagrammatically in Figure 1. Certain anatomical and physiological changes take place in pregnancy affecting function of the lower urinary tract and pelvic floor. Pressure of the enlarging uterus pushes the bladder down and can increase the bladder neck opening and mobility thus causing stress urinary incontinence (Freeman 2002). Damage to the pelvic floor during labour or delivery can lead to reduced support for internal organs, reduced muscle strength due to trauma by stretching or tearing (Freeman 2002), and damage to the pudendal nerve resulting in longstanding delayed pudendal nerve conduction and thus stress incontinence (Snooks et al 1990). Sphincter dysfunction can result in urge incontinence commonly in the antenatal period (Freeman 2002).

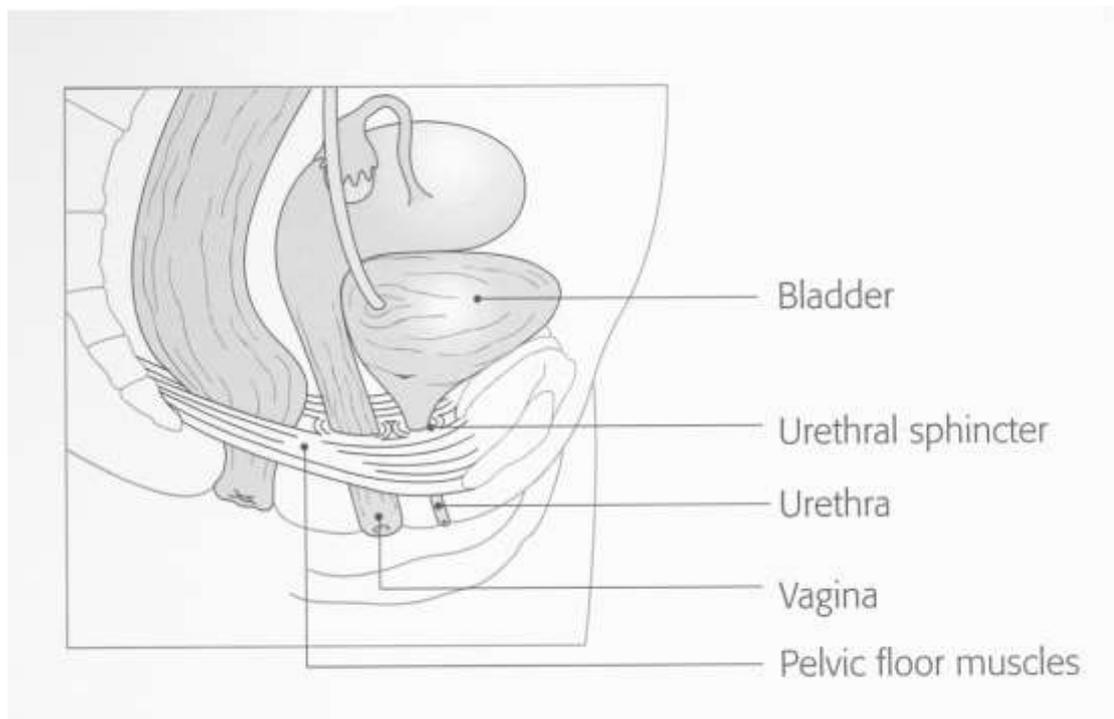


Figure 1; The pelvic floor. From; Bladder disorders. Versi and Christmas 1998.

1.5 Risk Factors

These physiological changes associated with pregnancy involved in the development of urinary symptoms, either at the time or later years. In addition, other physiological issues such as increased weight and chronic diseases such as diabetes mellitus may also be relevant. Available research papers on risk factors are now reviewed.

1.5.1 *Review of risk factors*

Birth weight and obesity have been investigated as possible risk factors by Krue et al (1997). A questionnaire regarding stress incontinence was sent to 119 women (89.2% response rate) with a pre-pregnancy body mass index of >30 and subdivided into higher birth weight ($> 4000\text{g}$) and lower birth weight ($<4000\text{g}$). Although the prevalence of urinary incontinence was higher in the higher birth weight group this was not statistically significant ($p = 0.10$ in a paired analysis). The same team identified obesity as a risk factor in a sample of 180 (83% response rate) using a sample of women of normal weight as controls (Rasmussen et al 1997). The overweight women were more likely to have stress incontinence (29.1% versus 11.7%, $p = <0.01$), use pads (23.3% versus 4.3% $p = 0.000$) and consider the incontinence a hygiene problem (29.1% versus 11.7% $p = <0.01$). However, although the birth weight of the infant did increase the risk of stress incontinence this was not significant ($p > 0.10$ in paired analysis). The samples for both these studies were rather small but several other authors have also identified a higher body mass index as a risk factor (Viktrup et al 2006, Glazener et al 2006, Schytt et al 2004, Minassian et al 2008, Wilson et al 1996).

A cohort study to identify obstetric risk factors recruited 723 women on the postnatal wards, of these 234 (32.3%) also participated in a randomised controlled trial (RCT) of an

intervention of pelvic floor muscle exercises (Ewings et al 2005). The response rate at six months was 76% and 45.5% (251) of the sample reported stress urinary incontinence. Multivariate logistic regression was undertaken to adjust for other variables identified and a recognised urinary symptom questionnaire was used to assess symptoms (B-FLUTS, Jackson et al 1993). Stress urinary incontinence was significantly associated with prior symptoms (OR 4.49, 95% CI 3.09-6.53), persistent constipation (OR 1.86, 95% CI 1.03-3.34) and episiotomy at least once (OR 1.96, 95% CI 1.25-3.07).

A questionnaire survey administered at three months postnatal to 3405 primiparous women investigated risk factors for new urinary postnatal incontinence (Glazener et al 2006). This was part of a larger sample that also included multiparous women. A higher maternal body mass index (OR 1.68, 95% CI 1.16-2.43) and heavier baby (OR 1.565, 95% CI 1.12-2.19) was associated with incontinence first starting in pregnancy and older maternal age was associated with new postnatal incontinence (OR 2.02, 95% CI 1.35-3.02). There was a significant difference when caesarean section was compared to spontaneous vaginal delivery (OR 0.28, 95% CI 0.19-0.41). Multivariate analysis was undertaken.

A cohort study of women in Sweden analysed information from 2390 (75%) women who completed questionnaires at around 16 weeks gestation, ten weeks postnatal and one year after delivery (Schytt et al 2004). Multiparity, (OR 1.8, 95% CI 1.1-1.8) obesity (OR 1.6, 95% CI 1.1-2.4) and constipation after delivery (OR 1.4, 95% CI 1.1-1.9) were predictors in women undergoing vaginal delivery, but the strongest predictor of symptoms at one year was urinary incontinence 4-8 weeks after a vaginal delivery or antenatally (OR 5.5, 95% CI 4.1-7.4). Women who had a caesarean section were less likely to have stress

urinary incontinence than women who had a spontaneous vaginal delivery (RR 2.2, 95% CI 1.6-3.1). The prevalence rate at one year was 21.7% (518) with 2% (48) considering the symptoms a major problem.

In order to ascertain the influence of leaking prior to pregnancy on postnatal incontinence a longitudinal study was conducted with 124 women (Stainton et al 2005). The women were interviewed three times before delivery (14 weeks, 24 weeks and 38 weeks gestation) and three times after delivery (24-72hrs, 6-8 weeks and 12-18 months). Results showed that the only key factors for predicting leakage at twelve months postnatal was leakage prior to pregnancy; these women were 4.14 times more likely to leak than women who were continent before pregnancy ($p = 0.02$), and a long second stage of labour ($p = 0.03$). The authors did state however that the relatively small sample size meant that only one risk factor was adequately indicated and suggested that the study should be repeated with a larger sample to verify the findings and identify other factors that might lead to leaking in pregnancy.

In a cross-sectional study that formed part of the EPINCONT study, family history was found to be a risk factor. After adjustment for age, body mass and parity, risk of urinary incontinence was increased for women whose mothers or sisters had any incontinence (RR 1.31, [95% CI 1.19-1.44] and; 1.59 [95% CI, 1.34-1.89]; absolute risk 29.6%) respectively (Hannestad et al 2004). The participants in this large study were; 6021 mothers, 7629 daughters, 332 granddaughters and 2104 older sisters of 2426 sisters.

In a twelve year longitudinal cohort study of 241 women (Viktrup et al 2006) it was found that the prevalence of urinary incontinence was significantly higher in those who had

urinary leakage during or shortly after the first pregnancy ($p < 0.01$), in addition the prevalence of stress urinary incontinence was 42% (102), and the twelve year incidence was 30% (44). Another follow-up study at ten years in Sweden of 246 (81%) women (Altman et al 2006) identified the first vaginal delivery as the most important, further deliveries of any type or other obstetric events were not significant (RR 5.8, 95% CI 1.2-33.7). Multivariate analysis adjusted for age and parity revealed that stress urinary incontinence at ten years was independently associated with stress urinary incontinence both at nine months (RR 13.3, 95% CI 3.9-33.1) and five years (RR 14.1, 95% CI 2.5-18.8) after the first vaginal delivery. Urinary incontinence in pregnancy was identified as a strong predictor of postnatal urinary incontinence ($p = < 0.01$). Vaginal delivery was also a significantly higher risk (28.3% versus 12.0%, $p = < 0.001$). After a first vaginal delivery 66.7% of women who had leakage in pregnancy had postnatal urinary incontinence (OR 8.6 95% CI 6.1-12.1, $p = < 0.001$), which may again implicate pregnancy, and not just childbirth, as a risk factor. More longitudinal studies are needed to identify the effect of subsequent obstetric events and other risk factors.

The final study reviewed in this section investigated whether it was possible to predict postnatal incontinence in the antenatal period, particularly looking at physical markers for collagen weakness (Chaliha et al 1999). A total of 549 nulliparous women were interviewed in the third trimester and were all re-interviewed after delivery. Pregnancy and delivery were associated with an increase of stress urinary incontinence and urge symptoms ($p = 0.05$). No relationship was found between body mass, race, family history, smoking or physical conditions (such as varicose veins and striae) and postnatal urinary incontinence, nor was there any relationship to obstetric variables. However, these results

conflict with several other studies reviewed and it may be that these discrepancies are a result of the smaller sample size in this study.

1.5.2 *Conclusion*

In conclusion there was variation in the papers, some authors selected a single variable to research while others looked at a number of them, and several risk factors were identified. Where appropriate all studies undertook multivariate analysis, apart from Viktrup (2006) as the numbers were too small. It is important to establish the relationship between variables when several exist or are identified. Leaking prior to pregnancy was a strong predictor (Stainton et al 2005, Ewings 2005), as was leaking during pregnancy (Viktrup 2006, Ewings 2005, Schytt et al 2004), and frequency (Burgio et al 2003). Leaking at four to eight weeks after delivery was a strong predictor of long term leakage (Altman et al 2006, Schytt et al 2004). Regarding type of delivery, a number of studies reported reduced rates of urinary incontinence in participants who had had a lower segment caesarean section (Glazener et al 2006, Farrell et al 2001, Mason et al 1999, Wilson et al 1996). However, two longitudinal studies (Altman et al 2006, Viktrup et al 2006) found the initial reduction in symptoms after a first lower segment caesarean section was no longer apparent after subsequent deliveries. In addition, two studies reported no statistical difference for any delivery (MacLennan et al 2000, Mayne et al 1995). A systematic review identified a significant reduction in stress urinary incontinence from 16% to 10% after caesarean section (OR 0.56, 95% CI 0.45-0.68) but little difference if only severe symptoms were considered, indicating further research was necessary (Press et al 2007). Other risk factors related to delivery mode have been identified, including instrumental delivery (Burgio et al 2003, Farrell et al 2001, Mayne et al 1995), although Wilson et al (1996) found no difference between spontaneous vaginal delivery and forceps delivery.

Spontaneous vaginal delivery was also found to be a risk factor (Glazener et al 2006, Altman et al 2006, Burgio et al 2003, Farrell et al 2001).

Obesity was identified as a risk factor (Glazener et al 2006, Schytt et al 2004, Krue et al 1997, Rasmussen et al 1997), and Glazener et al (2006) found the birth weight of the baby to be important, while Krue et al (1997) did not. Maternal issues such as increased parity (Schytt et al 2004, Mason et al 1999), higher maternal age (Schytt et al 2004, Mayne et al 1995) and family history (Hannestad et al 2004) were also identified. Constipation was identified as a risk factor in two studies (Ewings et al 2005, Schytt et al 2004). Episiotomy was identified as a risk factor by only one study (Ewings et al 2005), although several others reviewed other obstetric variables including episiotomy (Viktrup et al 2006, Altman et al 2006, Schytt et al 2004, Chaliha et al 1999). Smoking was identified by two studies (Burgio et al 2003, Samuelsson et al 1997) and also increased length of time breast-feeding (Viktrup et al 2006, Burgio et al 2003). Response rates in all studies were above 75%, however, some sample sizes were relatively small. Two were follow-up studies and others interviewed at different times in the postnatal period including three months (Glazener et al 2006), six months (Ewings et al 2005), and one year (Schytt et al 2004). Due to variation in sample sizes, measurement tools and length of the postnatal interval selected comparison of studies was difficult, standardisation would facilitate accurate identification of risk factors. More longitudinal studies would allow analysis of persistent symptoms and the relationship to further obstetric events.

1.6 Guidelines

Guidelines are documents detailing advised patterns of care for a specific condition devised by experts using the best available evidence at the time, they are not prescriptive.

Protocols or standards both give prescriptive instruction on how care should be given, this needs to be followed precisely and as a consequence can be difficult to apply, therefore, guidelines are now more commonly used. Guidelines allow an opportunity to adapt the advice to a specific area. Available guidelines for this area of care are now briefly explored. There are several areas where guidelines might be useful to the practitioner in assessing and treating women with postnatal urinary symptoms. Identifying those most at risk early in pregnancy, or even before conception, would seem to be an appropriate approach. Only one risk assessment tool has been identified specifically for women at the time of childbirth. This was accessed from a disabled living website; www.promocon.co.uk. (accessed 2/07). The website states that it has been thoroughly evaluated and was developed by a wide panel of experts. However, there appears to be no published research to substantiate this at the present time. The tool is included as Appendix 2. This website also gives advice on the preparation of patient information regarding pelvic floor muscle exercises for all women. Although there is a certain amount of literature on the subject, no systematic reviews have been found on assessment during pregnancy or the immediate postnatal period. Guidelines on routine postnatal care of women and their babies were published by the National Institute for Health and Clinical Excellence (NICE 2006). Urinary retention advice requires practitioners to ensure women have passed urine by six hours post delivery and suggests measures to be taken if this does not happen. Although this is a far less common sequel of delivery, it does potentially have far more serious and possible long term effects and is therefore advised to be treated as an emergency. Urinary incontinence is given two sentences in the guidance, suggesting that women with some involuntary leakage should be taught pelvic floor muscle exercises and if it does not resolve the incontinence, then the woman's condition should be evaluated.

Guidance on treatments for persisting symptoms does exist. The NICE guidance on urinary incontinence (NICE 2006a) gives clear guidance on initial assessment including checking for infection, categorising type of incontinence and asking the women to complete a bladder diary. Implementation guidelines also form part of every NICE publication. Pelvic floor muscle exercises should be tried for three months after assessing the woman is able to do the exercises by digital examination. However, the researchers state that further study was needed to evaluate the preventative role of pelvic floor muscle exercises at other times. In particular, more research is needed to develop strategies that will aid long-term effectiveness. Cochrane Reviews have also been published on the effectiveness of pelvic floor muscle training versus no treatment (Hay-Smith and Dumoulin 2006) and the effectiveness of pelvic floor muscle training in antenatal and postnatal women (Hay-Smith et al 2008). The International Continence Society publishes fact-sheets on treatment and assessment of urinary symptoms and these are available on the website (www.icsoffice.org accessed 12/07). The society also publishes reviews on aspects of care as part of their annual conference and these are freely available to download from the society website above (Donovan et al 2005, Wilson et al 2005). Standardisation documents to guide practitioners with regard to terminology are also available (Messelink et al 2005, Abrams et al 2002). However, a systematic review and evaluation of assessment methods for urinary incontinence concluded that research in this field was generally of poor quality and was therefore difficult to assess (Martin et al 2006). The report did manage to discern that urinary incontinence can be diagnosed in primary care using clinical history alone and that a bladder diary appeared to be the most cost-effective way of assessing bladder problems in primary care.

1.7 Conclusion

In conclusion, this chapter has highlighted a very variable prevalence both in the postnatal period and the general female population, brought about partly by the difference in study populations including country of origin, age groups and time since delivery. Guidelines are available for some aspects of assessment and treatment and there is a Health Technology Assessment detailing a systematic review and evaluation of methods of assessing urinary incontinence (Martin et al 2006). However, research is not always of high quality, and there may be a lack of evidence in some areas. Although a number of risk factors have been identified, including vaginal delivery, leakage prior to pregnancy and obesity, there are no national guidelines for assessing which women are most at risk in the postnatal period. The information contained in the NICE Guidelines for postnatal care (2006) is very limited. The NICE Guidelines for patients with persisting urinary incontinence (2006a) are more detailed and specific, although there has been some criticism of research in the field. Research relating to antenatal pelvic floor muscle training has shown mixed results.

The next chapter is a systematic review of treatments offered using unassisted pelvic floor muscle exercises for women in both the antenatal and the postnatal periods.

Systematic review of the effectiveness of unassisted pelvic floor muscle exercises for the treatment and prevention of stress urinary incontinence in antenatal and postnatal women.

2.1 Introduction

Stress incontinence is defined as “the complaint of involuntary urinary leakage on effort or exertion, or on sneezing or coughing” (Abrams et al 2002). The previous chapter has detailed the relevant background issues of prevalence and risk factors.

Exercise using no other equipment is usually referred to as unassisted. Other methods that require equipment are referred to as assisted. The pelvic floor muscles are contracted by the patient on a regular basis following clear instruction. Ideally an exercise pattern should be set and the patient should have a vaginal examination to assess competency (Anders 2005). Kegel (1948) was the first to suggest that treatment might be possible for stress incontinence and in some American texts the exercises are referred to as “Kegel” exercises.

First line treatment for stress or mixed urinary incontinence should be pelvic floor muscle exercises with lifestyle advice for three months, electrical stimulation or biofeedback training can be used in addition but only if the woman is not able to contract the pelvic floor independently (NICE 2006a). Practice nurses see women for several routine reasons, cervical smears and family planning for example, and could easily ask about continence. Continence nurses are keen to teach necessary skills to interested nurses and are well qualified to undertake this instruction (Rhodes 1994). However, education

material and instruction is often sparse and ill-timed (Parker 2001) and women of all ages are frequently reluctant to seek help (Mason et al 2001). Research is needed regarding the reasons for non-compliance to ensure economic use of services.

A number of other reviews have also evaluated the effectiveness of interventions for stress incontinence. One recent review of all treatments in adults (Wilson et al 2005) found some evidence that pelvic floor muscle exercises are better than no treatment in the short term for postnatal women. Another review of all treatments in pregnancy and the postnatal period (Harvey 2003) found that assisted exercises were effective at improving symptoms and muscle strength although the evidence for unassisted exercises was unclear. A systematic review that explored all types of pelvic floor treatments for stress incontinence in women at any age, including two postnatal studies, (Berghmans et al 1998) concluded that more research of a higher methodological quality was required to evaluate treatments. Two Cochrane Reviews which evaluated pelvic floor muscle exercises for stress incontinence in women (Hay-Smith and Dumoulin 2006) and physical therapies for urinary and faecal incontinence in adults (Hay-Smith et al 2002) concluded that pelvic floor muscle exercises were effective in reducing stress incontinence. Neumann et al (2006) also found evidence that physical therapy was effective in reducing stress urinary incontinence but, in common with many of the other reviews, stressed the need for more, higher quality research. While the four reviews found some effect of pelvic floor muscle training, all admitted more evidence of a higher grade was needed. A review that also included assisted exercises identified that there was an effect in postnatal women with urinary symptoms, which may reduce the likelihood of incontinence in later life (Haddow et al 2005). Recently a Cochrane Review (Hay-Smith et al 2008) has evaluated the effectiveness of antenatal and postnatal pelvic floor muscle exercises,

identifying some evidence that women having a first pregnancy could prevent urinary incontinence in late pregnancy and postpartum, however, this had not been published at the original time of writing. Although the primary aim was to look at postnatal studies, some authors had investigated the effects of antenatal pelvic floor muscle exercises and these trials were also included in the review.

Therefore, to clarify the situation, a systematic review of the effectiveness of unassisted pelvic floor muscle exercises in the treatment and prevention of stress urinary incontinence in antenatal and postnatal women was conducted. The systematic review of the effectiveness of pelvic floor muscle exercises in preventing stress urinary incontinence in postnatal women has been published (Wagg and Bunn 2007) and is included as Appendix 3.

2.2 Aims

- To evaluate the effectiveness of unassisted pelvic floor muscle exercises in the treatment and prevention of stress urinary incontinence in antenatal and postnatal women.
- To highlight areas for further research.

2.3 Methods

2.3.1 *Inclusion criteria*

The review included English language randomised controlled trials (RCTs) of unassisted pelvic floor muscle exercises versus usual care for antenatal and postnatal women.

Outcomes of interest for the review were pelvic floor muscle strength, symptoms of incontinence such as leakage on coughing or sneezing, patient satisfaction and quality of life. Unassisted exercises were defined as those where no equipment is used.

2.3.2 *Identification of studies*

A comprehensive literature search was conducted for relevant information. Databases were searched in December 2004 for trials involving postnatal women and in November 2008 for trials involving antenatal women, there were no date restrictions. Details of databases searched are presented in Table 1 and are common to both parts of the review. The search terms used for postnatal women are in Table 2 and for antenatal women later in Table 5. In addition, reference lists, textbooks on childbirth or continence, and proceedings from the International Continence Society conferences were searched and established experts in the field contacted.

2.3.3 *Data extraction and analysis*

Two authors independently extracted data using a specially designed form, which is included as Appendix 4. Although this was not a Cochrane Review, the Cochrane Handbook was used (Higgins and Green 2006) and also the data collection checklist of the Cochrane Effective Practice and Organisation of Care (EPOC) Review Group (Cochrane EPOC 2002) provided guidance.

Data were collected on study design, participants, intervention, measurement tools, outcomes, and results. Markers for quality were allocation concealment, analysis by intention to treat, losses to follow-up, and blinding of outcome assessment. These criteria are the factors associated with bias in RCTs and are similar to those used elsewhere

(Cochrane Collaboration EPOC 2002, Higgins and Green 2006). Data were also extracted on sample size and whether a power calculation had been undertaken. Where data were unclear or further information was required, the authors were contacted. Due to heterogeneity in participants, interventions and outcomes studies were not pooled in a meta-analysis. Instead a narrative and tabular summary of findings is presented for both antenatal and postnatal trials. Table 1 details the search strategy for both parts of the review. A flow diagram of the review process for postnatal women based on the QUORUM guidelines (Moher et al 1999) is presented in Figure 2.

Table 1

Systematic Review Search Strategy

<p><u>Electronic databases searched; (English language; search date December 04)</u></p> <ul style="list-style-type: none">Medline (1966-2006)PubMed (1966-2006)CINAHL (1982-2006)British Nursing Index (1994-2006)Embase (1974-2006)PsychInfo (1806-2006)Proquest Medical library (1950-2006)Proquest NursingJournals (1950-2006)Proquest Psychology Journals (1950-2006)Cochrane Central Register of Controlled TrialsCochrane Specialised Register (Incontinence)DAREClinical Evidence (1999-2006)SIGLE
<p><u>Textbooks on continence issues or childbirth searched (and reference lists);</u></p> <ul style="list-style-type: none">Promoting Continence (Getliffe K, Dolman M., 2002)Health after Childbirth (MacArthur C 1991)Continence Promotion and Management by the PHCT;Consensus Guidelines. (Button D. et al 1998)
<p><u>Government documents examined (and reference lists);</u></p> <ul style="list-style-type: none">Good Practice in Continence Services. DH 2000Health Outcome Indicators; Urinary Incontinence. (Brocklehurst et al 1999)Making the Case for Investment in an Integrated Continence Service. (Continence Foundation 2000)The Continence Foundation was contacted.

Figure 2 Flow diagram for systematic review process for postnatal women

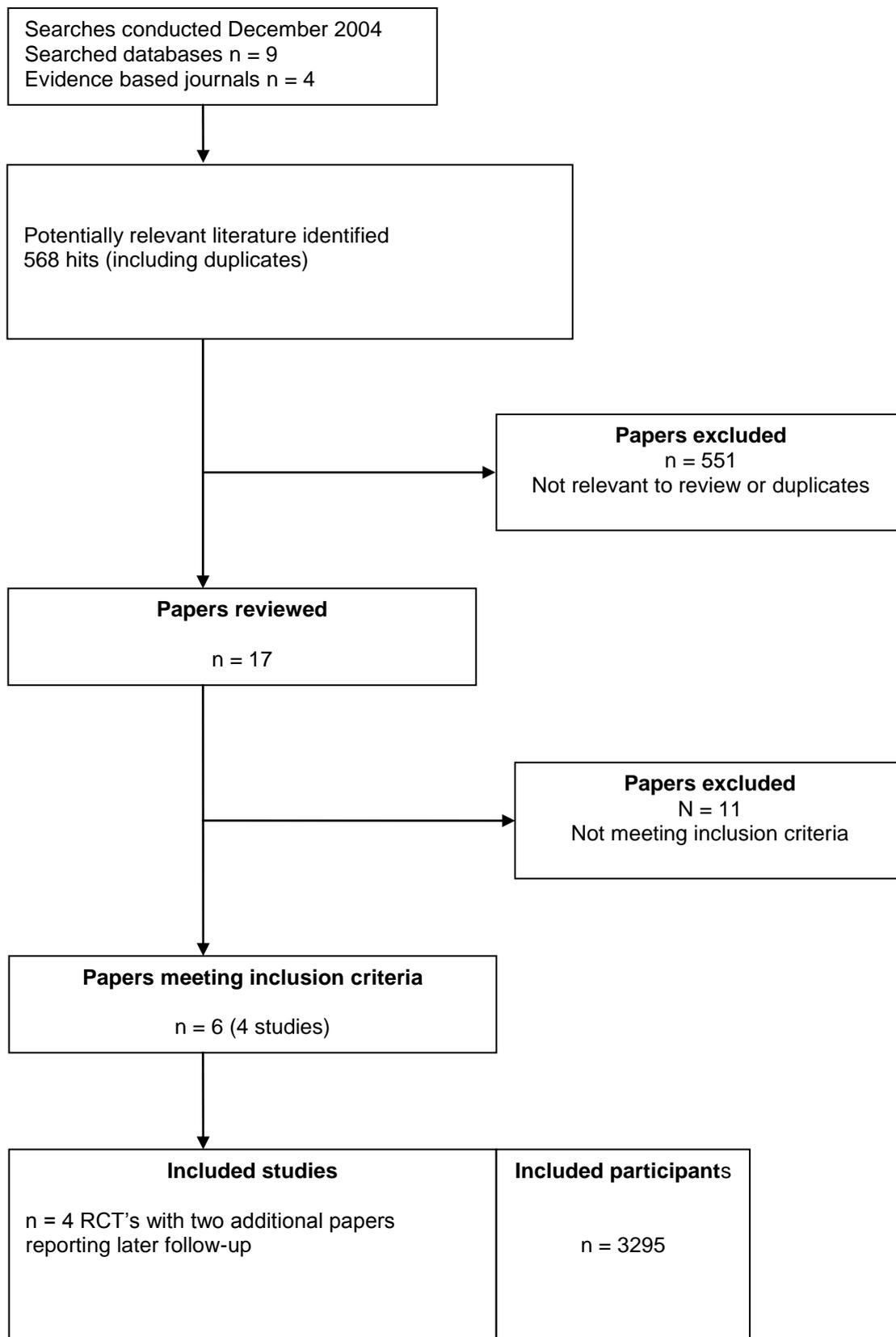


Table 2 Search terms used for postnatal women;

#1 Pregnancy (MeSH) OR
Postnatal (MeSH) OR birth OR delivery
#2 Urinary symptoms (MeSH) OR
Urinary incontinence (MeSH)
#3 1 AND 2
#4 Pelvic floor exercises (MeSH)
OR pelvic floor muscle training (MeSH)
#5 #3 AND #4

Search 2

#1 Urinary symptoms (MeSH) OR urinary incontinence (MeSH)
#2 symptom scores (free text) OR questionnaires (MeSH)
#3 #1 AND #2

2.4 Description of studies; Postnatal women

The initial search using the search terms as detailed in Table 2 (above) yielded nine RCTs, five of which were later excluded. Reasons for exclusion included the use of equipment such as cones, (Norton and Baker 1990, Dougherty et al 1989, Jonassen et al 1989), and methodological issues (Wilson et al 2002, Wilson and Herbison 1998) such as dissimilar groups or evaluation of one arm of a trial only. This left four trials (Chiarelli and Cockburn 2002, Glazener et al 2001, Sampsel et al 1998, Sleep and Grant 1987), which were judged to meet the inclusion criteria. Two trials (Chiarelli and Cockburn 2002, Glazener et al 2001) had later reported follow-up (Glazener et al 2005, Chiarelli et al 2004). Findings from these papers are also included in the review. Included studies were from a variety of countries. These were Australia (Chiarelli and Cockburn 2002), the USA (Sampsel et al 1998) and the UK (Sleep and Grant 1987). One study (Glazener et al 2001) was a multi-centre study with sites in England, Scotland and New Zealand.

All four studies included postnatal women. One (Glazener et al 2001) only included women with incontinence, whilst the other three recruited women regardless of the presences of incontinence symptoms (Chiarelli and Cockburn 2002, Sampsel et al 1998, Sleep and Grant 1987). One trial included only women who had had a vaginal delivery (Sleep and Grant 1987), one selected women who had undergone forceps or ventouse delivery only (Chiarelli and Cockburn 2002) and the remaining two trials included both normal and assisted deliveries (Glazener 2001, Sampsel et al 1998). Both of these trials had similar levels of normal deliveries; 77% (Glazener et al 2001) and 81% (Sampsel et al 1998), although one reported a higher percentage of caesarean sections (18% compared to 7.1%) (Sampsel et al 1998). More details of included studies are presented in Table 3.

<p>2004 Chiarelli P., Murphy B., Cockburn J.</p> <p>12-month follow-up data from Chiarelli and Cockburn 2002.</p> <p>International Urogynecology Journal 15, 99-105.</p>	<p>See Chiarelli and Cockburn 2002</p> <p>12 month follow-up FU response (% of original) (I = 84%, C = 79%)</p>	<p>569 Total (720 original study) (I = 294, C= 275)</p> <p>See Chiarelli and Cockburn 2002</p>	<p>see Chiarelli and Cockburn 2002</p>	<p>Incontinence (Bladder diary & telephone interview)</p> <p>Compliance with exercise</p>	<ul style="list-style-type: none"> • Any urinary incontinence at 12months; intervention, 101/294 (34.4%), control 100/275 (36.4%) • Doing exercises adequately; intervention, 117/294 (39.8%), control 89/275 (32.4%)
<p>1987 Sleep J., Grant A.</p> <p>Midwifery, 3, 158-164.</p>	<p><u>RCT</u></p> <p>No baseline measures Follow-up 3 months.</p>	<p>1800 Total (I = 900, C = 900) all vaginal delivery. Mean age; intervention 27.1, control 26.2. Previous continence status unknown.</p> <p><u>Setting:</u> Single centre; Maternity Unit in southern England.</p>	<p>Intervention: intensive taught exercise programme with midwife. Mon-Sat, 4 week diary, telephone reminders.</p> <p>Control: Group exercise sessions with physiotherapist Mon-Fri. Written information.</p>	<p>Incontinence (postal symptom questionnaire)</p> <p>Depression/well-being (2 questions using 5 point scale)</p>	<ul style="list-style-type: none"> • Any incontinence; intervention; 180/816 (22.1%), control; 175/793 (22.1%) RR 1.0 (95% CI 0.85-1.20) • Doing exercises at 3 months; intervention; 58%, control; 42%. <p>Reported depression; fewer women from intervention group. (chi square for trend = 5.30: P< 0.05) Numbers not reported</p>
<p>1998 Sampselle C. et al</p> <p>Obstetrics and Gynaecology, 91(3), 406-411</p>	<p><u>RCT</u></p> <p>Follow-up 17 months. Random numbers computer table used.</p>	<p>72 Total (I = 34, C = 38) Over 18 yrs of age.</p> <p>Previous continence status unknown.</p> <p><u>Setting</u> 1 centre USA hospital outpatients and community based.</p>	<p>Intervention: Nurse led specific individually tailored exercise programme. Control: standard leaflet. Pelvic floor strength measured at 20 weeks, 35 weeks and 6 weeks, 6 and 9 months PN. Symptom questionnaire at each visit</p>	<p>Pelvic floor muscle strength</p> <p>Symptoms (scoring questionnaire)</p>	<ul style="list-style-type: none"> • Enrolment; both groups similar. • Mean (SD) urinary incontinence symptom scores ranged from 0.3 (0.5) to 0.7 (0.6) over time of study. • Measures analysis of variance; incontinence; significant interaction between time and treatment in whole sample, muscle strength; benefit in treatment group (not significant) • Control group had greater incontinence in late pregnancy and up to 6 months PN, but both groups were equal at 12 months (authors suggest due to normal tissue repair).

All the studies reviewed looked at pelvic floor muscle exercises versus usual care only. Usual care varied but was always less than the intervention. One sample size was relatively large, 1800 with 900 in each arm (Sleep and Grant 1987), two were a moderate size at 747 (Glazener et al 2001) and 676 (Chiarelli and Cockburn 2002) respectively and the fourth had a small sample of 72 (Sampselle et al 1998).

One trial was led by midwives (Sleep and Grant 1987), one by physiotherapists (Chiarelli and Cockburn 2002), and two by nurses (Glazener et al 2001, Sampselle et al 1998). Three studies included exercise programmes (Sleep and Grant 1987, Chiarelli and Cockburn 2002, Sampselle et al 1998). In addition, one also used an exercise diary (Sleep and Grant 1987) and one included measures to ensure compliance such as posters, stickers and information leaflets (Chiarelli and Cockburn 2002). The other study (Glazener et al 2001) included home visits to provide exercise instructions. Usual care was a simple leaflet for the two nurse-led projects, (Sampselle et al 1998, Glazener et al 2001) group exercise sessions for the midwifery study (Sleep and Grant 1987) and a leaflet and instruction session for the physiotherapy study (Chiarelli and Cockburn 2002).

2.4.1 *Measurement tools*

Only one trial measured pelvic floor contractions. This was done before and after the intervention using a strain gauge attached to a specially designed speculum (Sampselle et al 1998). Three studies used a symptom questionnaire, (Glazener et al 2001, Sleep and Grant 1987, Sampselle et al 1998), which was different in each trial. Only two studies used validated tools (Glazener et al 2001, Chiarelli and Cockburn 2002). Of the two nurse-led interventions, one (Glazener et al 2001) used a purpose designed ten page questionnaire, which asked demographic, general lifestyle and urinary or faecal symptom questions, and included the

hospital anxiety and depression scale (Zigmond and Snaith 1983). The other used a simple questionnaire grading four questions about incontinence between 0-3 (Sampselle et al 1998). The questionnaire used in the evaluation of a midwife-led intervention (Sleep and Grant 1987) included questions about urinary and faecal symptoms and also other general health questions related to postnatal recovery including depression and general well-being. The physiotherapy study (Chiarelli and Cockburn 2002) asked for yes/no answers to five questions about incontinence via a telephone interview. At one year women were asked to complete the questionnaire and fill out a bladder diary (Chiarelli et al 2004).

2.5 Results Postnatal studies

2.5.1 *Incontinence*

All trials measured incontinence as an outcome. Two trials (Glazener et al 2001, Chiarelli and Cockburn 2002) found a short-term reduction in incontinence in the pelvic floor muscle exercise group compared to the control. In one of these (Glazener et al 2001) they found a statistically significant difference in incontinence (RR 0.87, 95% CI 0.76-0.99) and severe incontinence (RR 0.62, 95% CI 0.46-0.84) at 12 months. However, at the six year follow-up far fewer women were doing pelvic floor muscle exercises, the positive effect on continence had disappeared (RR 0.96, 95% CI 0.88-1.05), and 75% of those who had been incontinent at baseline were still having problems. In the other study (Chiarelli and Cockburn 2002) they found a significant reduction in severe incontinence (RR 0.60, 95% CI 0.40-0.89) but not in incontinence (RR 0.81, 95% CI 0.66-1.0) at three months. At twelve months there was no significant effect on incontinence (RR 0.94, 95% CI 0.76-1.18). In one study (Sampselle et al 1998), they found a statistically significant difference in severity of incontinence at six weeks postnatal (mean difference 0.38, 95% CI -0.72—0.04), but this was not shown at 35 weeks, six or twelve

months. The fourth study (Sleep and Grant 1987), however, found no statistical difference between groups (RR 1.00, 95% CI 0.83-1.20).

2.5.2 *Pelvic floor muscle strength*

One trial measured pelvic floor muscle strength (Sampselle et al 1998). They found an increase in muscle strength in the treatment groups at six weeks and six months postnatal, but it was not significant.

2.5.3 *Quality of life*

One trial assessed anxiety and depression at 12 months (Glazener et al 2001) using the hospital anxiety and depression scale (Zigmond and Snaith 1983). No significant differences were noted in general well-being or depression, but women in the intervention group were less likely to be anxious. Another trial assessed depression and general well-being at 3 months using a five point scale. Fewer women in the intervention group reported depression.

Three out of four studies looked at whether women continued with the exercises (Chiarelli and Cockburn 2002, Glazener et al 2001, Sleep and Grant 1987). The intervention groups in all three studies were more likely to be doing pelvic floor muscle exercises than the control groups (58-100% and 42-66.1% respectively). However, in the two follow-up studies (Glazener et al 2005, Chiarelli et al 2004) they found that over time there was a decline in the number of participants doing the exercises.

2.5.4 *Study Quality*

Trial quality was mixed. Allocation concealment was judged to be adequate in three (Chiarelli and Cockburn 2002, Glazener et al 2001, Sampselle et al 1998) and unclear in one (Sleep and

Grant 1987). Assessment of the primary outcome was blinded in three trials (Chiarelli and Cockburn 2002, Glazener et al 2001, Sampselle et al 1998) but not in the other (Sleep and Grant 1987). Three studies reported using an intention to treat analysis (Chiarelli and Cockburn 2002, Glazener et al 2001, Sampselle et al 1998). Two studies reported a high loss to follow-up (Glazener et al 2001, Sampselle et al 1998), 29% and 36% respectively, while the remaining two studies (Chiarelli and Cockburn 2002, Sleep and Grant 1987) reported much lower levels of 6% and 11%. Details of study quality in the four original studies and the two follow-up studies can be found in Table 4 (below).

Table 4 Study Quality Postnatal trials

<u>Study ID</u>	<u>Follow-up: were over 80% followed up. Yes/No</u>	<u>Allocation concealment</u>	<u>Blinded assessment of primary outcome?</u>	<u>Intention to treat analysis reported?</u>	<u>Power calculation done?</u>
Glazener C. et al 2001	No (29% lost to FU)	A	Yes	Yes	Yes
Glazener C. et al 2005 (six year follow-up)	No (31% lost to FU)	N/A	N/A	N/A	N/A
Chiarelli P. and Cockburn J. 2002	Yes (6% lost to FU)	A	Yes	Yes	Yes
Chiarelli P. Cockburn J. 2004 (12 month follow-up)	No (21% lost to FU)	N/A	N/A	N/A	N/A
Sleep J. and Grant A. 1987	Yes (11% lost to FU)	B	Not clear	No	Yes
Sampselle C. et al 1998	No (36% lost to FU)	A	Yes	Yes	Unclear, plus samples failed to meet 80% power

Legend; Allocation concealment; A = adequate, B = unclear, C = inadequate.
FU = follow-up.

2.6 Description of studies Antenatal women

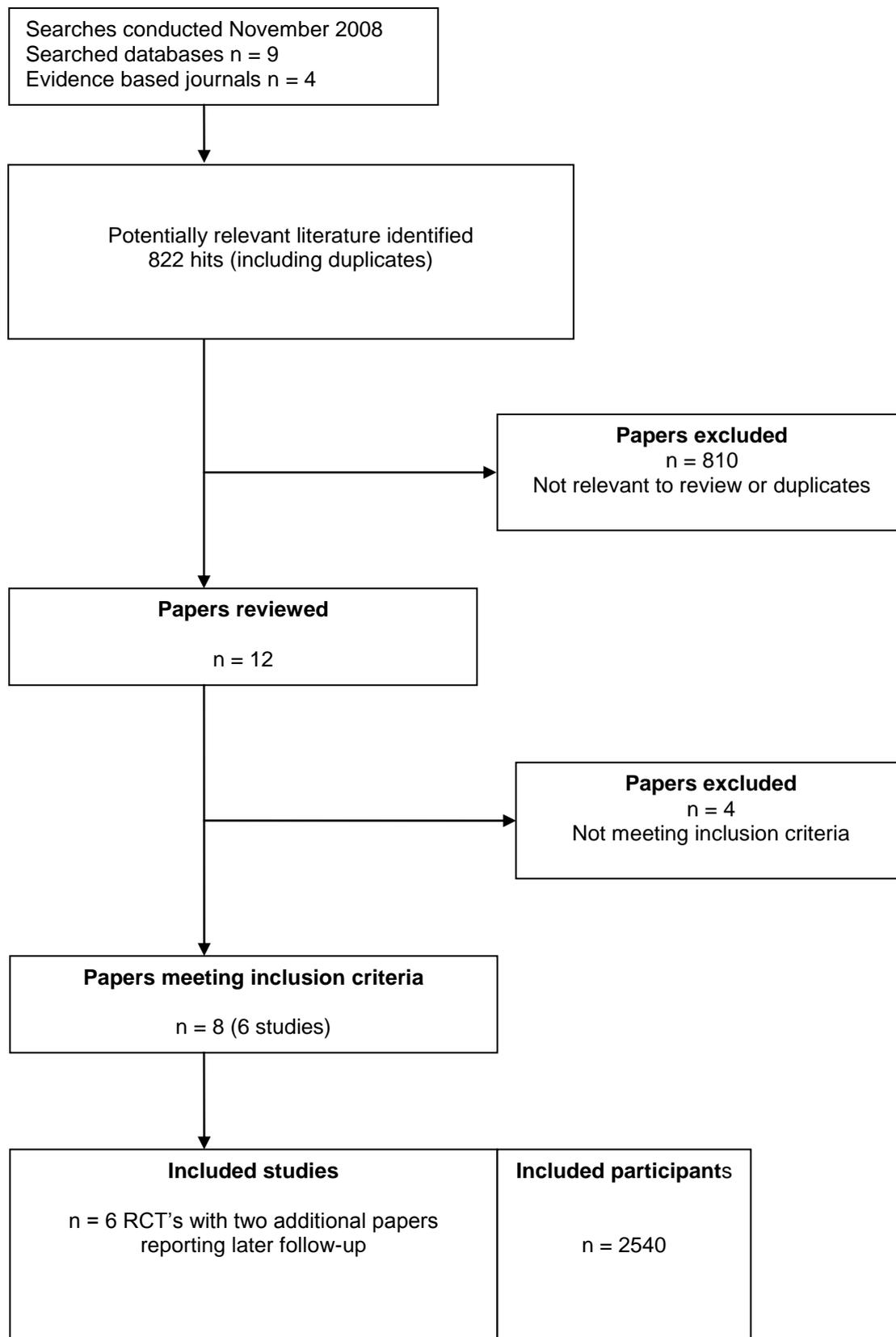
Six RCTs conducted in the antenatal period were judged to meet the inclusion criteria, one study is also included in the postnatal section (Sampselle et al 1998). The search terms used are presented in Table 5 and the flow diagram for the search is Figure 3.

Table 5 Search terms used for antenatal women;

#1 Pregnancy (MeSH) OR
Antenatal (MeSH)
#2 Urinary symptoms (MeSH) OR
Urinary incontinence (MeSH)
#3 1 AND 2
#4 Pelvic floor exercises (MeSH)
OR pelvic floor muscle training (MeSH)
#5 #3 AND #4

As with the postnatal review, the studies were conducted in a wide variety of countries; two were conducted in the UK (Reilly et al 2002, Hughes et al 2001), one in Norway (Morkved et al 2003), one in Holland (Woldringh et al 2007), one in Mexico (Chavez et al 2004) and one in the USA (Sampselle et al 1998). In addition, two follow-up studies related to the UK study by Reilly et al (2002) are included, one at four years (Udayasankar et al 2002) and one at eight years (Agur et al 2008). Three studies were available as abstracts only (Chavez et al 2004, Udayasankar et al 2002, Hughes et al 2001). Four further studies were excluded either because insufficient information was available (Skelly et al 2004), a pelvic floor muscle device was employed (Dannecker et al 2004), or urinary incontinence was not measured as an outcome (Agur et al 2005, Nielsen et al 1988).

Figure 3 Flow diagram for systematic review process for antenatal women



All the included trials studied antenatal women and offered intervention during pregnancy. Three included only nulliparous women (Chavez et al 2004, Morkved et al 2003, Hughes et al 2001). One trial included women who were continent to test primary prevention (Chavez et al 2004) while one recruited women who were incontinent to test secondary prevention (Woldringh et al 2007) and another selected women with bladder neck mobility (Reilly et al 2002). Bladder neck mobility has been reported as a possible risk factor for stress urinary incontinence by some authors (King and Freeman 1998). The remaining three trials recruited women of any parity without prior knowledge of their continence status. The women were recruited at different times in pregnancy, at 18 weeks gestation (Morkved et al 2003), 20 weeks (Reilly et al 2002, Sampsel et al 1998), 22 weeks (Woldringh et al 2007, Hughes et al 2001) and 28 weeks (Chavez et al 2004). The number of assessments also varied from five (Hughes et al 2001, Sampsel et al 1998) to four (Woldringh 2007), three (Chavez et al 2004), two (Morkved et al 2003) and one (Reilly et al 2002). Two studies were conducted by physiotherapists (Woldringh et al 2007, Morkved et al 2003), two by urogynaecologists (Reilly et al 2002, Hughes et al 2001) one by nurses (Sampsel et al 1998) and in one it was unclear (Chavez et al 2004).

In accordance with the postnatal review, all studies looked at pelvic floor muscle exercises versus usual care only. Again, owing to heterogeneity in participants, interventions and outcomes it was not appropriate to undertake a meta-analysis. Usual care was variable but always less than the intervention. Only one trial asked the control group not to do pelvic floor muscle exercises (Chavez et al 2004). The largest study had a sample of 1169, with 585 in the intervention group and 584 in the control group (Hughes et al 2001). Of the other studies, three were a moderate size at 301 (Morkved et al 2003), 268 (Reilly et al 2002) and 264 (Woldringh et al 2007), and two were smaller both having 72 participants (Chavez et al 2004, Sampsel et

al 1998). The intervention in five out of six trials consisted of exercise instruction given by physiotherapists but varied in intensity and number of sessions. The sixth study had exercise instruction delivered by a nurse (Sampselle et al 1998). The number of sessions ranged from one session only (Hughes et al 2001, Sampselle et al 1998), three sessions (Woldringh 2007), six sessions (Reilly et al 2002), eight sessions (Chavez et al 2004) and finally twelve sessions (Morkved et al 2003). All trials confirmed the ability of the woman to perform vaginal pelvic floor muscle contractions (VPFMC) before the trials commenced. Two trials asked participants to keep a bladder diary (Woldringh et al 2007, Morkved et al 2003).

2.6.1 *Measurement tools*

Four trials utilised symptom scoring questionnaires, one used a purpose designed questionnaire containing four questions grading incontinence between 0-3 (Sampselle et al 1998), and one (Woldringh et al 2007) used both the Incontinence Impact Questionnaire (IIQ) (Uebersax et al 1995) and the PRAFAB questionnaire. The PRAFAB score was developed in the Netherlands; Protection used, Amount of urine loss, Frequency of incontinence, Aadjustment of behaviour due to symptoms and Body or self image as a result of the symptoms (Hendriks et al 2008). Another study (Reilly et al 2002) used both the Kings Health Questionnaire (Kelleher et al 1997) and the SF36 (Kind and Carr-Hill 1987) and Hughes et al (2001) used the Bristol Female Urinary Symptom Score (B-FLUTS) (Jackson et al 1996). The two remaining trials asked if the women were incontinent (Chavez et al 2004, Morkved et al 2003). Two trials reported specifically stress urinary incontinence (Chavez et al 2004, Reilly et al 2002), the remaining trials reported any urinary incontinence. More information regarding the trials included is shown in Table 6.

Table 6 Antenatal Studies

Date title and author	Methods	Participants and settings	Design/Intervention	Outcomes	Results
<p>1998 Sampselle C. et al</p> <p>Obstetrics and Gynaecology, 91(3), 406-411</p>	<p><u>RCT</u> Five assessments; 20 weeks, 35 weeks, 6 weeks, 6 months and 12 months postnatal. Random numbers computer table used. A priori power calculation</p>	<p><u>Participants</u> 72 Total (I = 34, C = 38) Over 18 yrs of age.</p> <p>Previous continence status unknown.</p> <p><u>Setting</u> 1 centre USA hospital outpatients and community based.</p>	<p>Intervention: Nurse led specific individually tailored exercise programme. Control: standard leaflet. VPFMC confirmed. Pelvic floor strength measured at 20 weeks, 35 weeks and 6 weeks, 6 and 9 months PN using an instrumented gynaecological speculum. Symptom questionnaire at each visit</p>	<p>Pelvic floor muscle strength</p> <p>Symptoms (scoring questionnaire)</p>	<ul style="list-style-type: none"> • Enrolment; both groups similar. • Mean (SD) urinary incontinence symptom scores ranged from 0.3 (0.5) to 0.7 (0.6) over time of study. • Measures analysis of variance; incontinence; significant interaction between time and treatment in whole sample, muscle strength; benefit in treatment group (not significant) • Control group had greater incontinence at 35 weeks ($p = 0.043$), at 6 weeks postnatal ($p = 0.032$) and at 6 months postnatal ($p = 0.044$), but both groups were equal at 12 months (authors suggest due to normal tissue repair).
<p>2001 Hughes P. et al</p> <p>Neurourology and Urodynamics, 20(4), 447-448 (Abstract)</p>	<p>Prospective RCT Five assessments; 26 weeks, 36 weeks, and three and six months postnatal. Randomised by computer generated numbers Power calculation; not stated</p>	<p><u>Participants</u> 1169 (I= 585, C = 584) Mean ages; I = 27.5, C = 27.6 Nulliparous, 22-25 weeks gestation <u>Setting</u> 1 centre UK Antenatal clinic</p>	<p>Intervention: Physiotherapist led small group and one to one session, daily regime Control: usual advice with antenatal care. VPFMC confirmed Symptom questionnaire at each time point.</p>	<p>Symptoms (Scoring questionnaire, B-FLUTS)</p>	<ul style="list-style-type: none"> • At enrolment (20 weeks) I = 22% stress incontinence, C = 30%. • Antenatal stress incontinence; I = 61%, C = 66% (OR 0.78, 95% CI 0.59-1.04) Not significant. • Postnatal stress incontinence; I = 36%, C = 38% (OR 0.90, 95% CI 0.64-1.28) Not significant. Numbers not available.

<p>2003 Morkved S. et al</p> <p>Obstetrics and Gynecology 101(2), 313-319</p>	<p>RCT single blind Three assessments; 18 weeks, 36 weeks gestation and three months postnatal. Randomisation; sealed opaque envelopes. A priori power calculation</p>	<p><u>Participants</u> 301 (I = 148, C = 153) Aged 18 And over Nulliparous, 18 weeks gestation. <u>Setting</u> Norway, Physiotherapy Clinic</p>	<p>Intervention: Physiotherapy led one hour per week for 12 weeks up to 36 weeks. Specified programme and other general exercises. Control: Instruction in pelvic floor anatomy and exercises plus usual care by midwife. VPFMC confirmed</p>	<p>Self-report of incontinence Home voiding diary Pelvic floor muscle strength via vaginal balloon catheter and transducer</p>	<ul style="list-style-type: none"> • Incontinence; <ul style="list-style-type: none"> • 36 weeks: I = 48/148, (32%), C = 74/153, (48%) ($p = .007$) RR 0.76, (95% CI 0.50-0.89) • 3 months I = 29/148, (20%), C = 49/153, (32%) ($p = .018$), RR 0.61, (95% CI 0.40-0.90) • Pelvic muscle strength; mean (36 weeks gestation) I = 39.9 (95% CI 37.1-42.7), C = 34.4 (95% CI 31.6-3.1), (3 months postnatal) I 29.5 (95% CI 26.8-32.2), C = 25.6 (95% CI 23.2-27.9) • Logistic regression analysis for odds ratio against other variables such as BMI and age showed no effect.
<p>2007 Woldringh C. et al</p> <p>International Urogynecology Journal, 18, 383-390</p>	<p>RCT Five assessments; 22 weeks, 35 weeks, 8 weeks postnatal, 6 months postnatal, 1 year postnatal. Randomisation; computer generated numbers stratified by Midwife Centre A priori power calculation</p>	<p><u>Participants</u> 264 (I = 112, C = 152) 22 weeks gestation with urinary symptoms(2 leaks in last 1 month) <u>Setting</u> Holland, Midwives Centre</p>	<p>Intervention: 3 physiotherapy training sessions between 23-30 weeks gestation and 1 at six weeks postnatal. Control: Usual care as given by midwife VPFMC confirmed</p>	<p>Severity of incontinence (as per PRAFAB questionnaire and 7 day bladder diary) Incontinence Impact Questionnaire (IIQ)</p>	<ul style="list-style-type: none"> • Any incontinence at 8 weeks PN; I = 50/112, (62%), C = 74/152, (68%) ($p = 0.442$) Not significant • Any incontinence at 1 year; I = 35/112 (58%), C = 59/152 (63%) ($p = 0.610$) Not significant.
<p>2002 Reilly E. et al</p> <p>British Journal of Obstetrics and Gynaecology, 109, 68-76.</p>	<p>RCT, single blind Two assessments; 20 weeks, three months postnatal Random computer numbers A priori power calculation</p>	<p><u>Participants</u> 268 (I = 139, C = 129) 20 weeks gestation with bladder neck mobility <u>Setting</u> UK, Antenatal clinic</p>	<p>Intervention: Monthly one to one physiotherapy appt from 20 weeks until delivery. Twice daily exercise programme. VPFMC confirmed, training for those unable. Control: verbal advice as</p>	<p>Reporting of stress incontinence at three months postnatal Pad test (ICS) Pelvic floor muscle strength</p>	<ul style="list-style-type: none"> • Stress incontinence at 3 months; I = 23/139 (19.2%), C = 36/129 (32.7%) RR 0.59 (95% CI 0.37-0.92) • Positive pad test at 3 months I = 7 (9.5%), C = 8 (10.8%) RR 0.87 (95% CI 0.35-2.23) Not significant

			usual from midwife.	Kings Health Questionnaire (KHQ) SF36	<ul style="list-style-type: none"> • No differences in pelvic floor muscle strength or bladder neck mobility • Health questionnaires; only difference was 1 domain of SF36; general health; mean difference 7.2 (95% CI 2.4-12.1) $p = 0.004$.
2002 Udayasankar V. et al 4 year follow up from Reilly et al 2002 International Urogynecology Journal and Pelvic Floor Dysfunction, 13 (1), 57-58.	Cross sectional follow-up study	<u>Participants</u> 100 (I = 42, C = 58) Original intervention at 20 weeks gestation with women with bladder neck mobility	As above	Reporting of stress incontinence KHQ	<ul style="list-style-type: none"> • Continent; I = 35/42 (83%), C = 32/58 (55%) • Stress incontinence; I = 7/42 (17%), C = 26/58 (45%) • De novo incontinence I = 10%, C = 21% ($p < 0.01$) • Protective effect of intervention maintained at four years.
2008 Agur W. et al 8 year follow-up from Reilly et al 2002 British Journal of Obstetrics and Gynaecology 115 , 985-990.	Follow up study	<u>Participants</u> 164 (I = 79, C = 85) as above	As above	Reporting of stress incontinence KHQ	<ul style="list-style-type: none"> • Stress incontinence; I = 28/79 (35.5%), C = 33/85 (38.8%) Not significant ($p = 0.7$) • No differences in quality of life domains.
2004 Chavez V. et al Ginecologica y Obstetrica de Mexico, 72 (12), 628-636.	RCT Three assessments; 28 weeks gestation, 35 weeks gestation and 6 weeks postnatal Randomisation unclear Power calculation unclear	<u>Participants</u> 72 (I = 38, C = 34) Nulliparous women 28 weeks gestation, continent <u>Setting</u> Mexico, unknown	Intervention: 8 1hr sessions with physiotherapist then weekly phone call. Biofeedback at each visit VPFMC confirmed. Control: asked not to perform pelvic floor muscle exercises during trial	Reporting of stress incontinence at each time point Surface electromyography at each time point.	<ul style="list-style-type: none"> • Stress incontinence 28 weeks; I = 0%, C = 17.2% 35 weeks; I = 0%, C = 47% 6 weeks PN: I = 15%, C = 47% • These results were said to be statistically significant but no figures are supplied.

Legend: B-FLUTS; Bristol Female Lower Urinary Symptom Score, VPFMC; vaginal pelvic floor muscle contraction. PRAFAB; Protection, Amount, Frequency, Adjustment, Body

2.7 Results Antenatal Studies

2.7.1 Incontinence

The primary outcome in five out of six trials was incontinence with one trial measuring severity of incontinence (Woldringh et al 2007). In the sixth trial they measured pelvic floor muscle strength and symptoms via a scoring questionnaire but the primary outcome was unclear (Sampselle et al 1998). As reported in the postnatal section, although Sampselle et al (1998) found a significant difference in stress urinary incontinence at 35 weeks gestation ($p = 0.043$), six weeks postnatal ($p = 0.032$) and six months postnatal ($p = 0.044$) the significance had disappeared by 12 months.

The largest study (Hughes et al 2001) found no significant difference in stress urinary incontinence either antenatally (61% versus 66%, OR 0.78, [95% CI 0.59-1.04]) or postnatally (36% versus 38%, OR 0.90, [95% CI 0.64-1.28]). In addition, another trial (Woldringh 2007) reported no significant differences in any urinary incontinence at eight weeks postnatal ($p = 0.448$), or one year postnatal ($p = 0.610$). Although Reilly et al (2002) reported significant differences in stress urinary incontinence at three months postnatal (I = 23/139 (19.2%), C = 36/129 (32.7%), RR 0.59, [95% CI 0.37-0.92]) there were no significant differences in pad tests, bladder neck mobility or pelvic floor muscle strength. Two further follow-up studies were reported for this trial, one at four years (Udayasankar et al 2002) and one at eight years (Agur et al 2008). The four year follow-up identified that the improvement initially seen was maintained (I = 17%, C = 45%, RR not reported) and the prevalence of de novo stress incontinence was significantly lower in the intervention group (I = 10%, C = 21%, RR not reported, $p < 0.01$). However, by eight years the difference was no longer significant (I = 35%, C = 38.8%, RR not reported), in addition there were no differences in the quality of life domains. The study from Mexico stated the results were significant but no statistics are

supplied, this was also one of the trials with the smallest sample (Chavez et al 2004). Finally the study from Norway (Morkved et al 2003) reported significant differences between groups both at 36 weeks gestation (I = 48/148, (32%), C = 74/153, (48%), $p = 0.007$, RR 0.76 95% CI 0.50-0.89), and at three months postnatal (I = 29/148, (20%) C= 49/153, (32%) $p = 0.018$, RR 95% CI 0.40-0.90).

2.7.2 *Pelvic floor muscle strength*

Pelvic floor muscle strength was measured in four trials (Chavez et al 2004, Morkved et al 2003, Reilly et al 2002, Sampsel et al 1998). Two used instrumented speculae (Morkved et al 2003, Sampsel et al 1998), one used surface electromyography (Chavez et al 2004) and one used perineometry (Reilly et al 2002). Although one trial found significant differences in muscle strength at 36 weeks gestation, (mean I = 39.9 (95% CI 37.1-42.7), C = 34.4 (95% CI 31.6-37.1) $p = 0.008$) and three months postnatal, (I 29.5 (95% CI 26.8-32.2), C = 25.6 (95% CI 23.2-27.9) $p = 0.048$), (Morkved et al 2003), the second trial (Sampsel et al 1998) found that although there was some benefit of increased pelvic floor muscle strength, the effect of treatment status did not reach statistical significance irrespective of the fact that the initial pelvic floor muscle strength had a significant effect on pelvic floor muscle strength at 12 months ($p = .014$). In addition, the third trial (Reilly et al 2002) failed to find a difference in muscle strength between groups. The fourth trial did not report the results for pelvic muscle strength (Chavez et al 2004).

2.7.3 *Quality of life*

Three trials along with the two follow-up papers used a questionnaire that also measured quality of life. One trial, that was only available as an abstract, reported using the B-FLUTS questionnaire but only results for incontinence were reported (Hughes et al 2001). Another study used both the IIQ and PRAFAB and reported that the positive impact on daily activities

and emotional health decreased markedly with time across both groups (Woldringh 2007). At 22 weeks gestation 77/112 (69%) of the intervention group and 99/152 (65%) of the control group reported incontinence had an impact on emotional health, but by one year postnatal this had reduced to 2/112 (3%) and 5/152 (5%) respectively. The Kings Health Questionnaire (KHQ) and SF36 were used in another trial and both the follow-up papers (Reilly et al 2002, Udayasankar et al 2002, Agur et al 2008). The only change reported in the original trial was one domain of the SF36, that of general health, with a mean difference of 7.2 (95% CI 2.4-12.1 $p = 0.004$). Quality of life measures were not reported by Udayasankar et al (2002) and Agur et al (2008) stated that there were no differences in any of the domains of the KHQ, however, no specific results for quality of life were reported.

2.7.4 Study Quality

As with the postnatal studies trial, quality was mixed. Difficulties were experienced with three studies that were only available as an abstract and, therefore, did not contain full information (Chavez et al 2004, Udayasankar et al 2002, Hughes et al 2001). All studies had adequate allocation concealment, however, loss to follow up was greater than 20% in three of the six trials (Woldringh et al 2007, Hughes et al 2001, Sampsel et al 1998) and both follow-up studies (Udayasankar et al 2002, Agur et al 2008). Blinded outcome assessment was adequate in all but one trial (Hughes et al 2001), this was largely because this was an abstract and did not contain enough information. In two of the studies that were only reported in an abstract, it is not clear if a power calculation was performed (Chavez et al 2004, Hughes et al 2001). In another study the process is unclear (Sampsel et al 1998). Although a power calculation was discussed it seemed to have been after the trial and certainly the two groups were not large enough to meet the stated level for 80% power. In two of the abstracts it was not possible to

identify whether analysis was by intention to treat (Chavez et al 2004, Hughes et al 2001). The study quality information is also presented in Table 7 below.

Table 7 Study Quality; Antenatal trials

Study ID	Follow-up: were over 80% followed up? Y/N	Allocation concealment	Blinded assessment of primary outcome? Y/N	Intention to treat analysis reported? Y/N	Power calculation done? Y/N
Sampselle C. et al 1998	N 36% lost to follow-up	A	Y	Y	Unclear when as sample sizes failed to meet 80% power level
Hughes P. et al 2001	N 34% at 6 months	A	Unclear	Unclear	Not stated
Morkved S. et al 2003	Y 4% at 3 months	A	Y	Y	Y
Woldringh C. et al 2007	N 38% at 1 year	A	Y	Y	Y
Reilly E. et al 2002	Y 14% lost to follow-up	A	Y	Y	Y
Chavez V. et al 2004	Y 4% lost to follow-up	A	Y	Unclear	Not stated
Udayasankar V. 2002	N 43% lost	N/A	N/A	N/A	N/A
Agur W. et al 2008	N 29% lost	N/A	N/A	N/A	N/A

Legend: Allocation Concealment; A = adequate, B = unclear, C = inadequate.

2.8 Discussion

Three out of four trials in the postnatal review (Chiarelli and Cockburn 2002, Glazener et al 2001, Sampselle et al 1998) demonstrated some improvement in symptoms of incontinence. In

two, this was statistically significant (Glazener et al 2001, Chiarelli and Cockburn 2002). However, in both these studies the effect was no longer significant at later follow-up (Glazener et al 2005, Chiarelli et al 2004). The trial that used a muscle strength measure demonstrated an improvement, although this was not significant (Sampsel et al 1998), and the one study that measured depression and anxiety found no statistically significant differences (Glazener et al 2001).

With regard to the antenatal trials a clear pattern emerges, four trials that had significant positive effects also had the most intensive intervention and this was regardless of the characteristics of the participants (Chavez et al 2004, Morkved et al 2003, Reilly et al 2002, Sampsel et al 1998). Two trials showed statistical significance for all assessments (Chavez et al 2004, Morkved et al 2003), Sampsel et al (1998) showed significant results for the first three assessments at 35 weeks, but by one year the groups were equal. Similarly the fourth study (Reilly et al 2002) reported significant improvements in stress urinary incontinence at three months postnatal. At follow-up at four years (Udayasankar et al 2002) the improvement was maintained, however, the sample was reduced to 67% and the authors advised caution due to the poor response. In addition, at eight years (Agur et al 2008) the effect was no longer significant. The remaining two trials were unable to show any statistical significance at any time point (Woldringh et al 2007, Hughes et al 2001). This would seem to indicate that although an intensive programme may have a positive effect, this is not maintained over time once the trial is completed. Trials with longer follow-up but closer time points may identify whether regular review in itself is beneficial in increasing compliance.

Four trials measured pelvic floor muscle strength. Although the increase in muscle strength reported by Sampsel et al (1998) was not significant, the other trial that used an adapted

speculum reported significantly higher muscle strength at 36 weeks gestation and at three months postnatal (Morkved et al 2003). The other two trials either did not find any differences (Reilly et al 2002) or failed to report on that variable (Chavez et al 2004). Three trials measured quality of life or at least used a questionnaire that included quality of life questions, but reporting of these issues was poor, presumably due to the fact that most outcomes were related to physical symptoms.

There are a number of methodological problems that could have a bearing on the validity of this review. Few trials were identified, study quality was variable, and comparisons were difficult because of variations in interventions and outcomes measured. Interventions ranged from one set of written instructions to several visits with close supervision and compliance aids such as stickers. In addition, type and intensity of care for the control groups varied between studies. Although all trials measured incontinence, none used the same symptom questionnaire, only four studies measured pelvic floor muscle strength (Chavez et al 2004, Morkved et al 2003, Reilly et al 2002, Sampsel et al 1998) and quality of life variables were poorly reported.

From the current available evidence it is uncertain what the best technique and approach might be to treating stress urinary incontinence related to pregnancy or indeed at any other time. It has been suggested that primary care is the most appropriate place to undertake the initial assessment and treatment of urinary incontinence (Good Practice in Continence Care DH 2000, Martin et al 2006), and this would certainly be possible with appropriate training. However, only one study evaluating an intervention in primary care was identified (Glazener et al 2001). This was a nurse-led intervention that included home visits which would not be feasible for large populations. A reduction in incontinence at 12 months was found, although at six years it was no longer statistically significant (Glazener et al 2005). Further studies in

primary care are needed, NICE (2006a) has suggested that first-line treatment can easily be undertaken in primary care, however, there is very little research in this area. Interventions would need to be surgery-based from an economical standpoint and would be time-limited. In addition, it would seem that the effect is often lost after the intervention has ceased both in the antenatal and postnatal period (Chiarelli et al 2004, Morkved et al 2003, Reilly et al 2002, Glazener et al 2001, Sampsel et al 1998), therefore, the type and frequency of intervention should be reviewed to identify ways to provide improvement in both the long and short term.

In addition, general practitioners often have limited knowledge in the management of continence problems (Grealish and O'Dowd 1998, Brocklehurst 1993, Brocklehurst 1990), and many qualified nurses lack the skills to undertake a continence assessment (Roe and Doll 2000, Cheater 1992). Further training for primary health professionals in the assessment and treatment of postnatal incontinence may be required. Although previous reviews have suggested that assisted exercises, such as vaginal cones, might be an effective treatment for stress urinary incontinence (Wilson et al 2005, Harvey 2003) the skills and equipment required may make this a less appropriate method for primary care. These issues are explored in chapter 10.

Even if urinary incontinence can be successfully diagnosed and treated in general practice, low attendance may still be a problem. It has been found that women frequently do not seek help for continence problems. A study of men and women with continence symptoms revealed that half of the female sample (148/293) had never sought help from their general practitioner (Teunissen et al 2005). Help-seeking behaviour is explored in detail in chapter 10.

There is awareness of the need to provide guidance for practitioners who do not specialise in this area but nevertheless encounter patients with bothersome symptoms. This has been discussed briefly in the background chapter and will be further explored in the discussion in chapter 10. The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) selected continence for women as the subject of a research utilisation project. Evaluation of available research evidence produced a comprehensive, evidence-based protocol and recommendations (Sampselle et al 1997). The effectiveness of the protocol was evaluated using a sample of 842 women with urinary symptoms (Sampselle et al 1999). Written instruction was given to the women, this included a description of the function of the pelvic floor muscles as well as a recommended schedule of performance. It is unclear how much contact there was with a health professional but the guidelines suggested discussion regarding correct performance of the pelvic floor muscle exercises and the questionnaire suggested there would be discussion with the nurse regarding follow-up.

A baseline questionnaire was completed and after three months of the intervention a similar questionnaire was completed again. However, only 132 (15%) of the original sample responded. There was a significant reduction in episodes of leaking in the previous week ($p = 0.0001$) and in the amount of bother experienced ($p = 0.0001$). This resulted in far fewer avoiding activities (14% vs 3.5%, $p = 0.001$). The authors also commented that the number of women with symptoms may well have been inaccurately lower due to false negative responses to the questions which were used to identify the sample. Other researchers have found that initial negative responses by participants have been contradicted by response to further detailed questions (Roe and Doll 2000). This must surely raise doubts regarding the validity of the initial questions. The extremely low response rate is concerning, but may be a reflection of

the amount of bother experienced by the patient which may affect desire to have treatment and be involved in the project.

In the UK, consensus guidelines specifically for use in primary care were developed by Button et al (1998), indicating that, where possible, identification and assessment should be undertaken in primary care, providing a health professional had appropriate skills. A standard assessment tool was selected and an agreed level of skill within the primary care setting was enabled. An evaluation was conducted in one general practice at three months with 174 (77%) of the sample who reported incontinence at the initial survey. Prior to the implementation of the guidelines, most patients presenting with incontinence problems were referred on to another health professional and few had all the required investigations before this. A response rate of 69% was achieved at three months, although only 19% had accepted the opportunity to attend the surgery for assessment and possible treatment. A statistically significant severity of symptoms was identified in those who sought help ($p= 0.0176$), however, although there was a slight reduction in severity after the intervention, this was not significant. The authors make the point that statistical analysis was difficult due to low numbers seeking help. It was found that not all the health professionals had followed the guidelines; this is another issue, even after extra training, time constraints may hamper implementation of guidelines. Further evaluation was recommended after the guidelines had been in use for longer.

While it appears that unassisted pelvic floor muscle exercises may be beneficial for treating and preventing postnatal incontinence in the short term, it was unclear from our review if there was any long-term benefit. These findings are in accordance with another recent review (Wilson et al 2005). This may, in part, be due to problems with adherence to the exercise programmes. Although it was clear from the review that the women in the intervention groups

were initially much more likely to be performing the exercises, it appeared that once the close supervision ended less continued with them (Glazener et al 2005).

A qualitative study of postnatal pelvic floor muscle exercises found a number of reasons for non-compliance (Ashworth and Hagan 1993). They found that the exercises were too low in the woman's priorities for them to be done conscientiously; there was no reward for doing them and no way of knowing that they were effective. However, non completion of the exercises was a source of self-blame and was seen as the cause of later continence problems. This in turn, made women reluctant to seek help for the problems. One of the trials in this review, Chiarelli and Cockburn (2002), had two accompanying qualitative papers (Chiarelli et al 2003, Chiarelli et al 2003a). They reported that while most of the women knew how often to do pelvic floor muscle exercises, few had performed at the required level or knew that the exercises should be done indefinitely. In addition, only two thirds of the women felt confident that the exercises were being done correctly, although they found the actual programme acceptable. A number of authors have suggested that more intensive and prolonged programmes may be needed to maintain any improvements in continence (Dumoulin 2006, Glazener et al 2005, Chiarelli et al 2004).

The financial implications of incontinence have been estimated as over £500 million to the National Health Service (Turner et al 2003) and this level of spending is mirrored worldwide, with annual costs estimated at 1.8 billion Crowns in Sweden and \$16.4 billion in the USA (Minassian et al 2003). In the over 40 age group as many as half a million people in the UK have urinary symptoms that are clinically significant and disabling (Perry et al 2000). It appears, however, that women often do not attend for treatment or understand the importance of it. In

addition there is a lack of high quality research, particularly in the long term, and little standardisation of interventions or assessments.

2.9 Conclusion

This review of international literature has shown that unassisted pelvic floor muscle exercises may be helpful in reducing antenatal and postnatal incontinence, particularly if the intervention is intensive, but that effects may not be maintained over time. High quality evaluations are needed to establish the efficacy of unassisted pelvic floor muscle treatments and to identify the most appropriate setting for providing this intervention. Research needs to use standardised interventions and outcome measures, include patient relevant outcomes such as quality of life, have follow-up periods that enable the evaluation of long-term effectiveness and, in particular, seek methods of retaining good practice. More regular routine follow-up may be appropriate for women of all ages to aid compliance and facilitate help-seeking. These issues are explored in chapter 10.

The next chapter discusses in detail the rationale for the selected methodology.

Methodology

3.1 Introduction

This chapter justifies the research design and methods following the identification of research questions. A detailed discussion of the choice of research method, its history and the divergence of opinion around its use is presented. Other possible options have been considered and these are discussed. The data collection methods selected within the chosen approach were explored and possible difficulties due to the sensitive nature of the enquiry examined. Data analysis is described and explained, including methods of assessing quality of data. Ethical issues have also been reviewed.

3.2 Identification of research questions

It was important to have clarity regarding the research questions and, therefore, the issues that led to the study were explored. This study was developed following research on urinary incontinence in older women (Wagg et al 2007 and 2007a). This previous study highlighted an issue; a considerable number of women had experienced urinary incontinence from childbirth but had taken no action to address this during the period following childbirth. These findings have been supported by other research (Hunskar et al 2004, Mason et al 2001, MacArthur et al 1993). It was also clear from personal clinical experience and anecdotal knowledge from other colleagues that younger women often suffered with urinary symptoms. However, women appeared reluctant to either seek or accept treatment.

This raised the question, therefore, to why treatment was not accessed earlier in their history of urinary symptoms, or at all? Indeed, was there a more effective way for health professionals to approach this issue which might encourage women to seek, access and take up services?

What were women's perceptions, experiences of access to treatment and its success rate? Was the health professional's perception of clinically significant symptoms meaningful to the women? Research exploring the views of women around this issue appeared limited. As demonstrated in the earlier study (Wagg et al 2007a), women may develop problems from childbirth, therefore it appeared that it may be appropriate to approach them after delivery, but before symptoms became part of everyday life. The prevalence both around the time of childbirth and later in life has been explored in the background chapter, however, symptoms may not be translated as a bothersome issue by all women.

Current available research regarding urinary incontinence in women at any age is largely quantitative, concerned with evaluating the effectiveness of different treatments as shown by the systematic review (see chapter 2). Studies of effectiveness included in the literature review have shown that pelvic floor muscle training may be effective in the short-term, but more research is needed to assess long-term effectiveness. In addition, there are gaps in knowledge regarding patient's perceptions and experiences of urinary incontinence at any age and qualitative research can help to illuminate these. The focus of this research was on the experiences and perceptions of urinary symptoms in women during the postnatal period, but women's experiences of enduring symptoms at any age are relevant and are reviewed in the discussion (chapter 10) in relation to the findings from this study.

Emerging questions for this project, therefore, concerned women's views of stress incontinence or other urinary symptoms, including knowledge of the causes and treatment, and the acceptability of service provision. In addition, personal experience of any symptoms and the amount of bother perceived was particularly relevant. The study aimed to generate enough broad data to enable a deeper understanding of the world of the women in order to inform the

development of a service that would be useful and acceptable in the future. The process employed is discussed in chapter 4.

3.3 Methodology

Methodology is the science behind the approaches that can be utilised in research and study (Weller 1989), this is further defined by Strauss and Corbin (1998) as “ways of thinking about and studying reality”, whereas method details the approach selected to systematically and rigorously explore the chosen subject (Bowling 1997). In this section this selection process has been detailed including the background to the chosen method.

3.3.1 *Why a qualitative method?*

There are two main paradigms in research methodology that can each be subdivided into a variety of approaches; quantitative and qualitative. A paradigm is a set of ideas that defines problems and methods of investigation in a different way to any other existing set (Polit et al 2001). According to Kuhn (1996) it must be different enough to encourage scholars to change from another mode and be able to further develop and solve new problems for them. The paradigm selected should provide an epistemological framework that has appropriate research methods to answer the research question posed and should not be related to a specific profession (Johnson 1999). The qualitative paradigm is interpretive, concerned with observing or obtaining the views of others to increase knowledge and understanding of a subject or the reaction of people to that subject (Cresswell 2003). It is concerned with the social world of the subject and explores social and spiritual dimensions of human consciousness (Clark 1998). Qualitative methods can provide a way to investigate complex, real-life situations but a poor or restricted choice of methods can impair the research outcome, therefore, selection should be carefully considered (Morse 1999).

Discord regarding paradigm and method in research, rather than useful discussion around the strengths and limitations, has not been helpful (Heath 1998), and the arguments for and against qualitative and quantitative research have been exhaustive. Nursing as an individual science is developing (Parse 1999) and, in common with any other science, both philosophical and scientific methods of enquiry can be employed to ensure a good match with theoretical perspectives and paradigm (Winters and Ballou 2004). Clear frameworks within paradigms should allow for a decision to be made without prolonged discussion on the merits of one or another. If the research questions are robustly structured, the relevant paradigm should be clear. In this study the research questions led logically to the qualitative paradigm and they are shown here again for convenience:

What were women's experiences of urinary symptoms?

What were women's perceptions, experiences of and access to treatment and its success rate?

Why do women not access treatment earlier or at all?

Is there a more effective way for health professionals to approach this issue?

Were the health professional's perceptions of clinically significant meaningful to the women?

3.3.2 *Selection of qualitative method*

Careful consideration was necessary to find a match between the research question and a theoretical perspective to underpin this research. Choice of approach needed to reflect the overall strategy and several were possible (Silverman 2000). Methods that focused on the experiences of the subject and allowed the researcher to explore and gain insight into the world of the patient were an important consideration for this study. The enquiry approach needed to

be patient focussed and give maximum value to the women's own interpretations. An approach that was both inductive and interpretive was selected to gain knowledge of how the women would perceive the phenomenon, what their perceptions of it were and where it would fit within their social world (Cirgin-Ellett and Beausang 2002). In addition, as each interpretive practice (data collection method) presents a different vision of the world under study, researchers may employ more than one to illuminate the whole picture (Denzin and Lincoln 2000, Introduction). Two methods that were considered, but not selected, are reviewed here.

3.3.3 *Phenomenology*

There are three schools of phenomenology, all with a basis in philosophy. Considered for this study was hermeneutic (or interpretive) phenomenology. This school of phenomenology was guided by the work of Heidegger (1927/1962) who considered that the primary focus of philosophy was on the nature of existence (or ontology). He saw it as a method to uncover the meaning of being for humans (Dowling 2004). It seeks to describe the essence (or essential hidden meaning) of a particular phenomenon by analysing the participants description of it (Giorgi 1997). The result is a story which gives insight into the phenomenon and the meanings of it by encouraging the subject to recall the event to mind and describe it (Kleiman 2004). The focus is on consciousness and the experience, the skill lies in the reading of the text to identify the meaning and intention (Moustakas 1994). Understanding and interpreting the life experience defines the character of human experience (Lindsay 2006). While the researcher takes account of personal biases and assumptions, they remain separate from the participant, as opposed to other methods, such as narrative enquiry, where the researcher is often part of the area under research, and is therefore involved autobiographically. The findings obtained, therefore, are texts from the patients' stories, the literature and the researchers own interpretations of the stories (Lindsay 2006). Thus themes and patterns are identified.

Phenomenology is particularly useful as an adjunct to theoretical information where evidence is sparse on a subject or where a phenomenon is difficult to conceptualise or measure (Clarke and Iphofen 2006). It could be said that this study sought to understand women's experiences of the phenomenon of urinary incontinence. However, this issue was more complex. Recording the experiences may not unravel reasons for inaction or explore interactions with others that might be of relevance. It is also not clear how the women actually view changes in personal urinary habits; in this sense the "experience" is possibly unknown. This approach does not generate theory as the detailed further exploration of particular points in subsequent interviews and the in-depth, line-by-line analysis of data necessary to build a theory is missing. Also, the phenomenological approach of hermeneutics is intrinsically related to meaning, this study did not intend only to understand the meaning of urinary symptoms for these women, but rather to gain understanding of the experience for the women. In the current study the intention was to develop critical understandings of why women were reluctant to access treatment by allowing the text to build a theory not dependent on any interpretation by the researcher. Therefore, a method with a "better fit" was sought.

3.3.4 *Narrative*

The narrative approach was also considered. This approach as a research method became popular in the 1970s and 1980s, although the modern world can be sceptical of stories and consider them "fiction" (McLeod 1997 chapter 2). Other researchers have agreed regarding all stories as socially constructed and therefore not "true" to life (Clifford and Marcus 1986 Introduction). Narrative researchers seek to discover how people construct knowledge from reconstruction of experience. The word narrative is sometimes used interchangeably with story; although a narrative is in fact more formal and structured than a story (Priest 2000). A story

could be described as an account of a specific event, whereas a narrative is a story-based account of something which gives more; for example by embellishing the tale with asides or other detail which creates a more analytic feel to the tale (McLeod 1997). Narrative analysis attempts to find the potential of a story and give more meaning to it (Emden 1998), and to reconstruct a life experience by relating behaviour to the sequel (Lindsay 2006). The researcher is often involved in the study with the participants, may work in the same area or have similar experiences and compare the tale to personal experiences, indeed the impetus for the project may have been an unsolved work issue (Lindsay 2006). Telling the story is, therefore, almost a therapy in itself, helping the participant to understand and cope with the content of the story, and can be used in this way purely as therapy and not research (McLeod 1997).

The participant is encouraged to tell a story of an experience over time which is analysed by reading and re-reading the text to understand it and its elements (Priest et al 2002). The interviewer comments, questions are removed and the remaining text is examined minutely to find themes which are eventually formed together as a core story. Computer software is also available to analyse narratives which, according to some, gives more precision to the results (Priest et al 2002). Whilst narrative analysis might have been useful in the current study, the focus was to generate theory and explanation, rather than develop thick description through story-telling. Therefore, this method was also not selected.

3.3.5 *Biographical narrative*

Biographical narrative was another possible choice of data collection method. Biographical narratives are repeated qualitative interviews over time to build up a biography of an individual, using their experiences and life-cycle (Polit et al 2001). This is a good way to demonstrate

change over time. Paasivaara et al (2003) used this method to chronicle the experiences of long-term elderly care nurses by retrospectively asking them to talk about set periods during their careers. In addition, Swallow and Jacoby (2001) used this method to ask mothers of children with a chronic disease about their feelings over three time points after the diagnosis.

Initially, biographical narrative was the method of choice, with a view to starting interviews with the women before delivery, and remains an option for future research as interviews could be continued further into the postnatal period. This would allow documentation over time of the women's experiences and changing attitudes and beliefs about urinary symptoms, an area which is under-researched.

3.4 Background of selected main approach

The approach selected was grounded theory (Glaser and Strauss 1967). This section explores the roots of this approach, the rationale for the selection of it and, in particular, the choice of emphasis from the different schools of thought on grounded theory. Finally, tensions within design and methodology are discussed.

3.4.1 *Symbolic interaction*

The epistemological origins of grounded theory come from symbolic interactionism. The main influence on the development of symbolic interaction were the early 20th century sociologists and pragmatists, among them George Mead whose work in Chicago had a major effect on the development of this process. The approach developed as a response to the social problems created by industrialisation and urbanisation (Benzies and Allen 2001). Blumer (1969), who is credited with giving the label "symbolic interaction" to the method in 1937, suggests this approach has, at its heart, the idea of the "self", allowing individuals to engage in stimulus-

response behaviour, social interaction and “inner conversation” (reflecting on own mental processes before acting). A collection of unpublished papers, originally written in 1934 by Mead, were published and edited by Morris (1967). Mead concurred with Blumer and further proposed that “self” and society existed in a dialectic relationship, he focussed on unspoken communication which all people use unconsciously (i.e. gestures), or ways of using language to stimulate a certain reaction from others. He also argued that people use results of past similar events to guide them in an appropriate response. Therefore, subjects constantly respond and react to the social situations within the social world. The “self” is either given at birth or develops because of environmental or genetic factors, this framework is then interpreted and modified to create a personal world relating to experience past and present (Stevenson et al 2004).

Symbolic interaction, therefore, assumes people can and do think about personal actions and rely on language and communication as symbols to aid construction of realities (Blumer 1969). Individuals can use these interpretations as guidance in the real world. Therefore, there is a focus on the way people make sense of interactions and how they interpret certain symbols such as language, behaviour and communication (Polit et al 2001 [chapter 9], Charmaz 2006). Blumer (1969) felt there were three parts to the theory; meaning (what meaning an action has for the individual), language (how people interpret what they are told) and thought (being able to think things through and make changes as a result) (Stevenson et al 2004). Using this process it is possible for humans to modify meanings and symbols and react to other changes by reviewing possible actions and consequences as a result of interaction within themselves (Crooks 2001). Ideas can thus be conceptualised and re-conceptualised over time as a result of social interaction (Crooks 2001).

This approach has been used to help understand the role of the nurse, which had implications for organisation and workload (Byrne and Heyman 1997). Greater understanding of the complexity of the role of the nurse in accident and emergency, including the strategies for dealing with waiting patients, was enabled by the symbolic interaction approach which also obtained the views of the user. The nurses in the study all voiced a preference for the “major trauma” patients because of the excitement and drama, but when the findings were viewed from a symbolic interactionist perspective it became clear that there was an emotional element; the nurses felt needed by these patients and found this very satisfying. Symbolic interaction offers a theoretical perspective that can also be used in combination with other methods to give a better understanding of nursing and the client response to it, but the individual must be perceived within the context of their environment (Benzies and Allen 2001).

3.4.2 Applicability to this study

The basic tenets of symbolic interaction, therefore, provide an ideal framework to explore women’s experiences. The ‘inner conversation’, described by Blumer (1969), is at the heart of this study. The reasons why women may choose not to enter into discussion about or seek advice for incontinence may be related to their inner feelings or knowledge about the messages expected or received from peers and health professionals and the interpretation placed on them. Health professionals use medical “symbolic” language frequently; this may have one interpretation for the patient and another for the health professional. For example, a nurse may ask a patient “how are your waterworks?” but what does this mean to either party? Based on previous experience the woman may make an interpretation and respond even though the meaning is unclear. The health professional may also, unconsciously, affect consultations and limit time for disclosure by asking closed questions in a busy clinical situation, or communicating time pressure by gestures and other body language thus discouraging the

women from asking extra questions. The interaction between health professional and patient may then be flawed. Other researchers have demonstrated that nurse/patient and doctor/patient interactions can be problematic (Vinsnes et al 2001, Cheater 1991, Smith 1998, Crooks 2001); symbolic interaction can be used to give insight into why this may be so. The body of knowledge around women's experiences of health from a personal perspective is relatively small compared to research conducted within a medical model and more exploration of women's illness experiences is needed (Crooks 2001). In particular, Crooks (2001) suggests that women's viewpoints may change over time as a result of experiences and information being assimilated, this may have relevance here with regard to women's perceptions of urinary incontinence.

3.4.3 *The grounded theory approach*

Glaser and Strauss (1967) further developed the approach into grounded theory. They were American sociologists with theoretical roots in social interaction who had worked together for some time. Strauss studied in Chicago and had been influenced by social interactionists (Blumer 1969, Mead 1934, cited by Morris 1967) whilst Glaser was from Columbia University and had a pragmatist background (particularly after Lazarsfeld). It was helpful to be aware of how Glaser and Strauss came to work together. Strauss asked Glaser, who had been trained in quantitative methods, to analyse his research on dying (Glaser and Strauss 1964). At that time, qualitative research was often viewed with scepticism and Strauss saw working with Glaser as a way of giving more perceived definition to his work and indeed Glaser (1978) affirmed that grounded theory could and should be used for both qualitative and quantitative approaches. The pair wanted to produce research that was of value to all sorts of audiences and which had a solid theoretical base that fitted with reality (Morse and Field 1996, chapter 7). They interviewed nurses and patients about awareness of dying in many different settings e.g.

cancer ward, care home, general ward. From this, they developed awareness contexts which they deemed part of social interaction. These, they state, can be found in many other situations too. The nurses were aware of cues given to patients about their status (dying), and discovered that the symbolic language used to indicate that the patient was terminally ill was vague until the last stages. Often patients were unaware that they were dying. Codes were identified from the text and grouped into related categories. Two of the categories from the nurses transcripts were; professional composure and perceptions of social loss. One code under perceptions of social loss was “loss rationales” and they discovered that the rationales the nurses used to justify their perception of social loss helped them to retain professional composure when the patient died (Glaser and Strauss 1964).

The grounded theory process is both hierarchical and recursive as researchers must categorize data but limit theorizing until patterns emerge (Morse and Field 1996, chapter 7). The basic elements of constant comparison, theoretical sampling and coding procedures were part of this original method, however, it seemed that Strauss adopted a much more rigid approach than Glaser intended. The approach adopted by Glaser had an emphasis on theory generation and close examination of symbols in the socially constructed world, leaving the review of the literature until later. Strauss and Corbin (1990), however, emphasised the verification of the information obtained and looked more widely at the cultural scene and how the world of the patient was socially constructed. In addition, they always did a preliminary review of the literature to increase sensitivity and the texts were broken down in greater detail than the original method by Glaser and Strauss. Glaser later suggested that a very quantitative approach could only validate and verify theory, not generate it (Glaser 1992), but Strauss fundamentally disagreed with this.

Following this disagreement about method the partnership was ended and two slightly different methodologies were established. Glaser (1992) attempted to show perceived inaccuracies in the new method described by Strauss and Corbin (1990). A fundamental principle of the original method was the inductive reasoning of the analytical process (i.e. the process of reasoning from specific observations rather than predictions). Glaser (1992) argued that the theory should be allowed to emerge from the data directly using no interpretation and should be verified with the data, whereas Strauss advocated a descriptive approach which supported directive questioning and interpretation and much more fragmentation of the data (Duchscher and Morgan 2004).

The analytical approach of Strauss and Corbin encourages breaking down the transcription much more, almost word for word, leading to many codes which, in the view of Glaser, would lead to over conceptualisation. Glaser (1992) suggested that once initial analysis was complete the theory would emerge, it would not need forcing. According to Strauss and Corbin (1998) the researcher should usually have no preconceived theories on the subject, however, Glaser argued that this was exactly what the methods of Strauss did have. In reality it is almost impossible for the researcher to have no preconceived ideas if they are working in that area. It could be said that the method used by Strauss and Corbin was merely a further development of the original idea; the basic principles were still there. Other methods have also diversified and changed, for example phenomenology (Melia 1996). In moving too far from the original method, however, it may be possible to encourage forcing of the data rather than allowing the theory to emerge, and this was the main criticism of Glaser (1992) of the work of Strauss and Corbin (1990).

It was important, therefore, to distinguish between the two approaches. The researcher should know which philosophy and analytical process will be used and the effect on the process and outcomes (Duchscher and Morgan 2004). Both originators did agree on the purpose however, that of uncovering a theory that was true to the reality of the situation could be understood by those being researched and fitted within the social context. It should also allow for relationships between concepts (Duchscher and Morgan 2004). Clearly there was often misunderstanding in grounded theory due to these disagreements. Indeed some published articles do not appear to follow the process fully, for example more than one core category may be reported (Jacobsson et al 2004). If the basic style of the approach was followed and the different stages were clear it should be possible to adapt both methods to suit the purpose. The methodological debate continued. Glaser remained convinced Strauss and Corbin were wrong and frequently criticised their work in subsequent publications (e.g. Glaser 1992).

3.4.4 *Why grounded theory?*

One of the aims of this project was to comprehensively describe the experiences and beliefs of women in the postnatal period. To do this a research approach that would identify explanations of behaviour, the hidden meanings and the constraints of social relations, by seeking the views of the users was needed. Grounded theory is one of the most discussed, disputed and debated research methodologies, as demonstrated in the discussion above (Walker and Myrick 2006). It is often thought that the grounded theory approach is only appropriate where there is no prior knowledge at all on a subject, however, the definition by Strauss and Corbin (1998) is the assumption that not all concepts or constructs pertaining to a particular phenomenon have been identified in a certain population or place or that relationships between these concepts are poorly understood or undeveloped. Indeed when Glaser and Strauss (1967) first described the approach there would have been many areas where there was little or no knowledge. However,

40 years later there are far fewer areas where no knowledge exists, although there is still ample opportunity to use the explanatory power of grounded theory to embellish certain aspects of a subject. It is, therefore, a useful approach where there is little prior knowledge of a subject (McCann and Clark 2003a). In addition, the constructs should, when identified, enable understanding and enhance care (Field et al 1994). Only enough knowledge to get a feel for the issues and identify gaps to be filled using grounded theory should be identified before the study is undertaken (Smith and Biley 1997). Grounded theory seeks to examine social processes and attempts to understand the many variations that different interactions may produce (Heath and Cowley 2004). It is also one way of giving women a voice, in particular the conflict that often exists between caring activities and personal health issues (Crooks 2001), as in this project; caring for a new baby and dealing with incontinence. The relationship between researcher and the women is a powerful social context creating a reciprocal process of exploration inherent in women's ability to develop social relationships. In addition this allows women to tell their own story from all perspectives including sociological, political and economic, and consequently the researcher can conceptualise women's behaviour (Crooks 2001). Understanding the experience can lead to theoretical understanding which may enable development of services.

Grounded theory methods specify analytic strategies not the data collection methods (Charmaz 2000). Indeed, in a complex situation several methods may need to be employed to create a full understanding of the whole picture. This approach, therefore, allows for a number of data collection methods within the natural setting such as interviews, observation and focus groups and this can produce richer and broader data (McCann and Clark 2003a). Individuals with common problems often have similar perceptions and behaviours and grounded theorists aim to identify these (McCann and Clark 2003) and the in-depth analysis which forms the analytical

process of grounded theory allows for this. Grounded theorists also assume that people make sense and order from events in their lives and analysis attempts to discover the process (McCann and Clark 2003). The constant comparison and analysis of new information thus aids the development of a theory.

3.4.5 *Why Glaser and Strauss?*

The findings were analysed using the method of Glaser and Strauss as adapted by Charmaz (2006). The original Glaser and Strauss (1967) method advocated simultaneous data collection and analysis, construction of codes and categories from the data rather than a preconceived hypothesis, using constant comparison at each stage while also further developing the theory all the time. They also used memos to elaborate codes and sampled to increase theory building rather than just a certain number and the literature review was always conducted after the interviews were complete. However, Charmaz (2006) suggests some sensitisation initially is allowable as it is very difficult to have no preconceived ideas on a subject and indeed Glaser and Strauss did suggest some variation may be necessary in certain situations. Charmaz (2006) views grounded theory as a flexible method containing a set of principles and practice not firm instruction, and that a theory is constructed through past and present interactions rather than discovered as Glaser and Strauss (1967) proposed. This method was selected for the emphasis on theory emergence and less fragmentation of the data. In Figure 4 (below) Charmaz (2006) illustrates the commonalities in grounded theory, which could be described as a hybrid version of grounded theory, but Charmaz (2006) is of the opinion that it is acceptable for individual researchers to vary the emphasis and suggests that adaptation is necessary in a changing world.

The Strauss and Corbin (1998) approach felt very technical, which did not seem to fit well with a qualitative study and it seemed that it was possible to over conceptualise data because of the level to which it was broken down. The emphasis by Glaser and Strauss (1967) on a systematic approach using constant comparison and sampling for theory generation seemed to fit better with the desired outcome; a theory generated in the data. In addition, Glaser and Strauss (1967) claimed that researchers should develop fresh theories and, therefore, not review literature first other than a brief overview, thus limiting the researcher's prior knowledge of other research on the subject and should enter the research setting with as few predetermined ideas as possible (Glaser 1978).

In nursing research it is often an area of interest or clinical work where the idea for a research study is generated and, therefore it is often not possible to have no prior knowledge. Yet it may be an area where little is known and would therefore be suitable to a method such as grounded theory. It may also be difficult to be sure that there is not a large body of knowledge if some sensitisation is not undertaken. In this instance previous work with a different age group had highlighted little research on the topic with the proposed client group.

This chapter has detailed the methodology of the research study. The next chapter details the design and methods implemented as a result of this process.

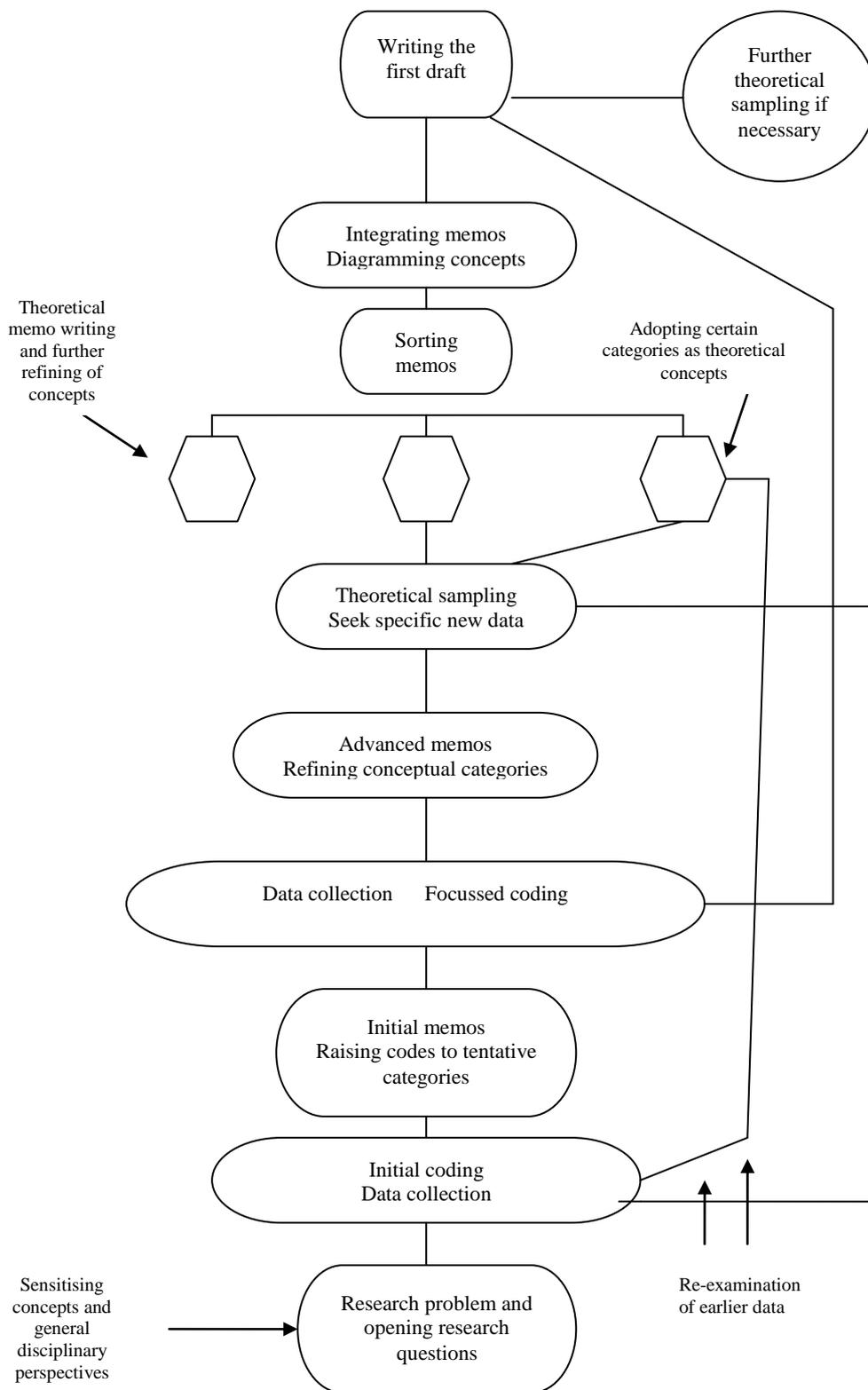


Figure 4

An overview of the grounded theory process. (Charmaz 2006)

Methods

4.1 Introduction

This chapter details the methods selected for this study as a result of the exploration and consideration of available choices. The aims and objectives are stated and the research design is clarified. Selected methods of sample recruitment and data collection and analysis are explained. Pilot work, reliability, validity and ethical considerations are also presented. Data collection commenced in December 2003 and continued until December 2006.

4.2 Research Aims and Objectives

This study aimed to identify women's experiences, beliefs and knowledge of urinary symptoms in pregnancy and the post-partum period and also sought to understand the perceptions of health professionals.

The objectives were;

- To identify existing literature on effectiveness of interventions using unassisted pelvic floor muscle exercises and conduct a systematic review.
- To review the existing literature on the experiences of urinary symptoms in women of childbearing age comprehensively and systematically.
- To explore, describe and enhance understanding of the experiences and beliefs of women experiencing urinary symptoms in pregnancy and post-partum.
- To explore the attitudes, beliefs and knowledge regarding urinary symptoms in women of childbearing age of health professionals.

4.3 Research Design

The overall design was a qualitative study drawing on grounded theory techniques, preceded by a systematic review of pelvic floor muscle exercises.

A systematic review of the treatment available in primary care was undertaken to identify availability of an effective treatment for postnatal women, this has been detailed in chapter 2. This review was undertaken as a precursor to the qualitative study; one of the intentions was to explore with women their practice and experience of pelvic floor muscle exercises and to use a urinary symptom measurement tool (Appendix 5). Given the researcher's knowledge that some women reach middle age with residual symptoms, it was deemed important to identify whether or not one of the causative factors might be ineffective pelvic floor muscle treatment. In addition, the systematic review had highlighted problems with acceptability of, and concordance with, many of the existing interventions and this required further exploration.

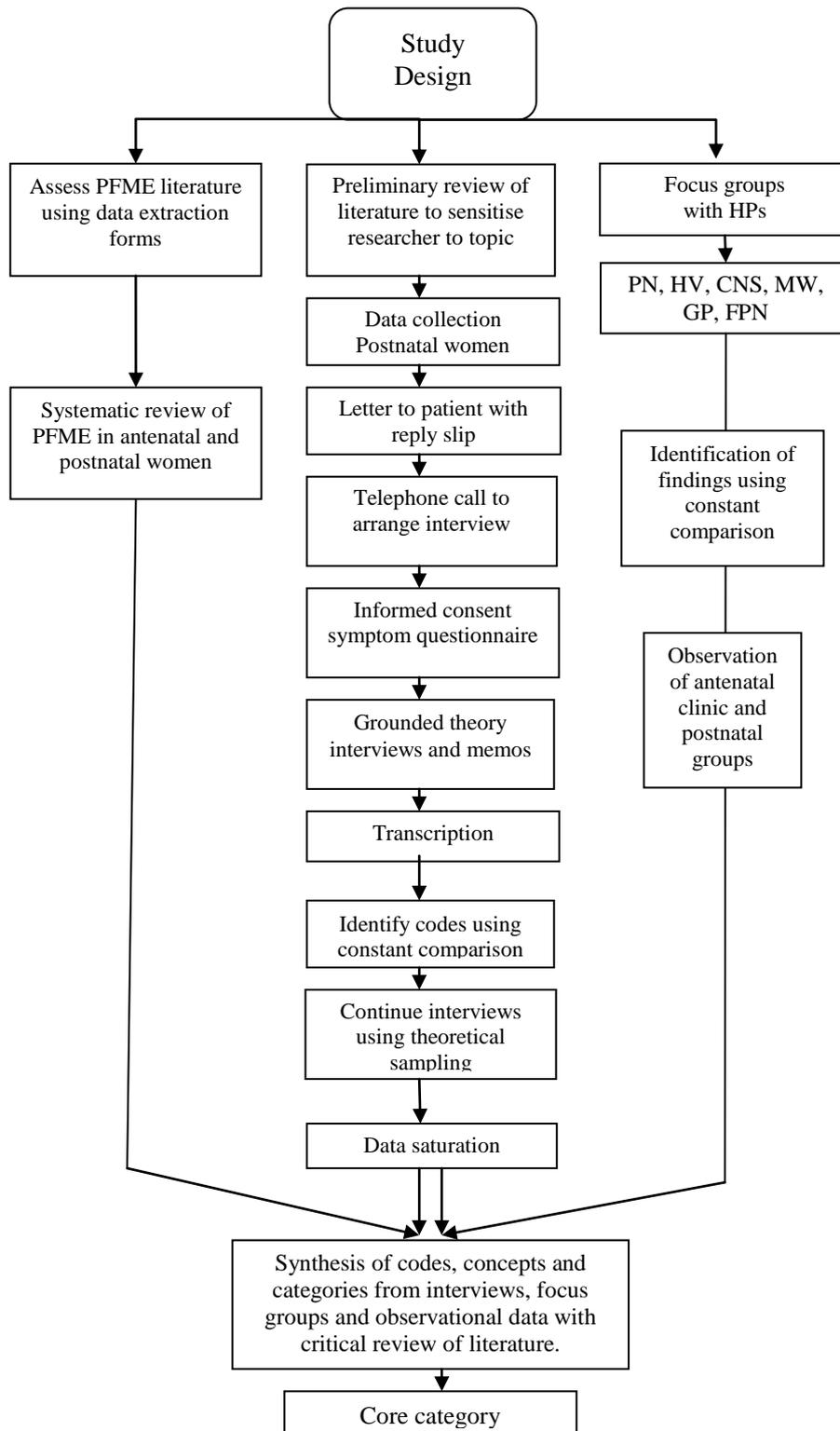
An in-depth qualitative study was designed:

- To identify the beliefs and experiences of postnatal women encountering urinary symptoms. Qualitative interviews were undertaken at approximately 12 weeks postnatal using grounded theory. These interviews and the analysis are discussed in chapters 5-9.
- Complimentary to the interviews, the study was designed to identify the knowledge and attitudes of healthcare professionals. Two multidisciplinary focus groups with staff who worked in the local area were carried out in the study practice.

- Further supplementary data was provided through observation in the antenatal clinic, postnatal groups and the previously mentioned urinary measurement tool (Appendix 5).
- Further literature was reviewed following the interviews and focus groups including; prevalence and incidence in postnatal women and also the general female population, identified risk factors, other treatments available, interventions in the antenatal period, attitudes and knowledge of healthcare staff, help-seeking behaviour and any other literature on women's experiences of urinary symptoms. In particular, the findings of the study were informed by literature on help-seeking (Hagglund et al 2003, Kinchen et al 2003, Shaw 2001, Mitteness and Barker 1995, Seim et al 1995), feminism (Kinser and Lewis 2005, Wuest 1995) and symbolic interaction (Stevenson et al 2004, Benzies and Allen 2001).
- A personal journal of the study has been kept to detail progress and problems.

The study design is detailed diagrammatically in Figure 5 (below). Based on the model by Charmaz (2006), it uses constant comparison, elevating codes to concepts and then categories as the theory progresses. However, Charmaz (2006) elevates codes to categories then concepts, but a concept is an abstract or general idea whereas a category is a class or a group which seemed more defined. A brief review of the literature was undertaken prior to the interviews to assist development of the research proposal. Several data collection methods were used within the study, as advocated by Charmaz (2006).

Figure 5; Study Design

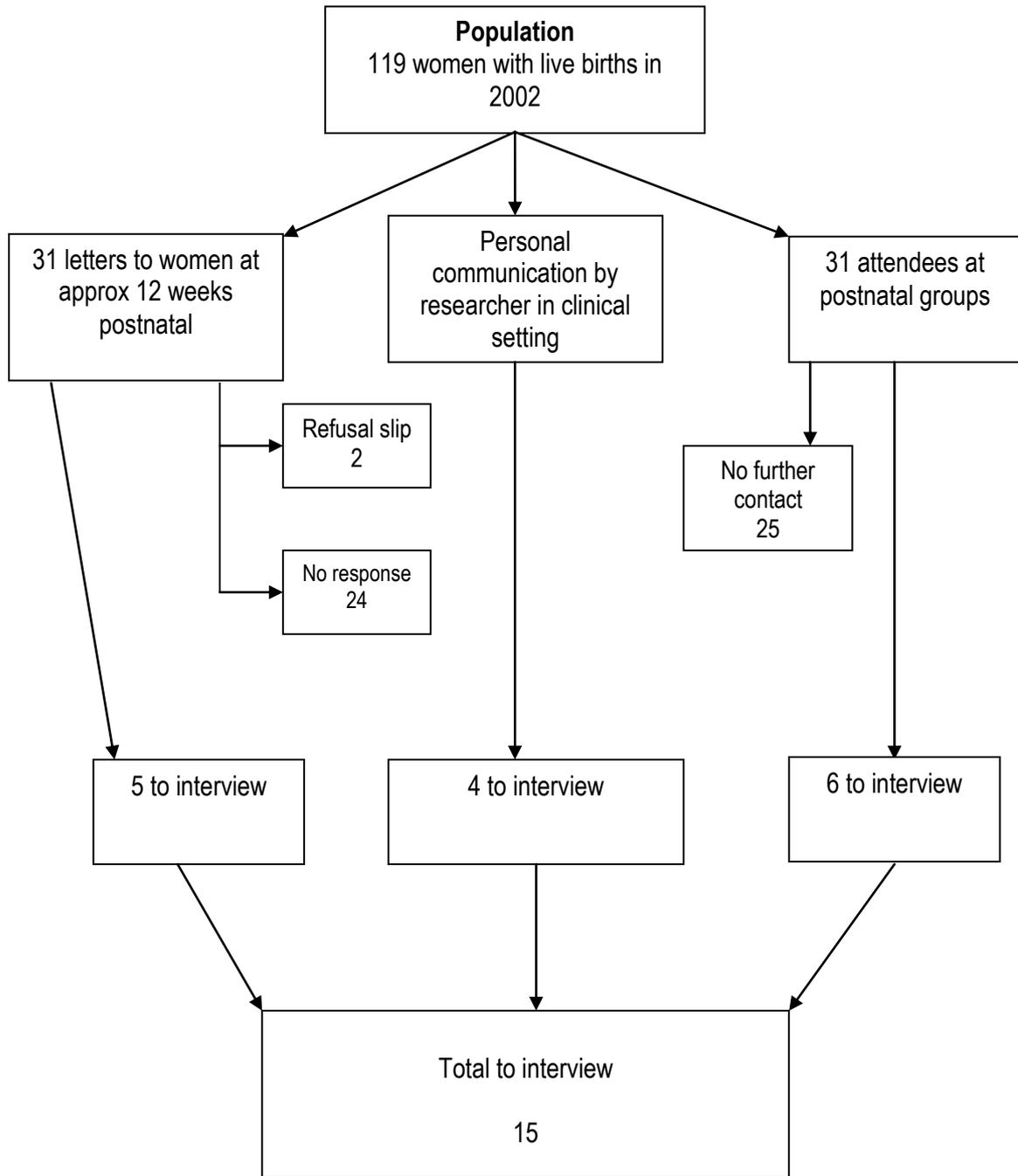


Legend; PN; practice nurse, HV; health visitor, CNS; clinical nurse specialist, MW midwife, GP; general practitioner, FPN; family planning nurse, PFME; pelvic floor muscle exercises, HP; Health professionals

4.4 Population, Settings and Samples

The selected population was all women from one large general practice who had given birth approximately 12 weeks earlier. In this practice 119 women had given birth in 2002, the year prior to commencing the interviews. Fifteen postnatal women were interviewed from a possible total of 64 (31 letters and 33 attendees at two postnatal groups). Figure 6 shows the process of recruiting the sample. Five of the women were recruited via letters, four via personal communication in the clinical setting and the remainder following attendance at postnatal groups. From the letters posted only two declined slips were received, the remainder did not reply at all. Eight women had delivered their first baby and seven had at least one previous delivery. Twelve had a spontaneous vaginal delivery, while two had a Ventouse delivery and one had a lower segment Caesarean section. Five had a second degree tear, four of these were sutured. Three women had a rapid second stage and one had an episiotomy. One woman was also re-interviewed at a later date. Further information about the women interviewed is given in the findings chapters in Table 9. Observation in one antenatal clinic and two postnatal groups was undertaken as supplementary and contextual data. Also, two multidisciplinary focus groups, totalling nine participants, were carried out with health practitioners allied to the study practice. One interview was also conducted with a general practitioner who had been unable to attend the focus group.

Figure 6 Flow chart of sample recruitment for the women



4.5 Recruitment of Samples

Prior to recruitment a meeting was held within the practice with all clinicians. At this meeting the study was explained and a practice study information sheet was given to each practitioner (Appendix 6). None of the general practitioners objected to patients being asked to take part. Where the women did not belong to the research practice a letter was sent to the relevant general practitioner explaining the research and including a copy of the information sheet.

4.5.1 Recruitment of the women

This was by letter or, if the woman was seen at the surgery, by personal invitation. The following inclusion/exclusion criteria applied;

Inclusion criteria;

- new mothers approximately 12 weeks postnatal

Exclusion criteria;

- mothers experiencing serious health problems
- mothers of stillborn infants
- mothers of infants with a serious health problem

A monthly list of women who had delivered (an average of approximately 9) was obtained from the computer administrator at the practice. At approximately 12 weeks postnatal a letter on headed notepaper from the practice was sent to the women asking them if they would be prepared to take part in the study (Appendix 7). The practice nurse responsible for the postnatal clinic also gave them a copy of the letter at the postnatal visit ensuring familiarity with the study. During the first month three letters were sent out and no responses were received.

The first mailing was small in the mistaken or naïve belief that most women would agree to interview. A limited time was available to the researcher for interviews and small mailings were seen as a way to prevent potential participants being lost through delays in interviewing. The second batch of eight letters received one response. This mother had expressed an interest at the time of the postnatal visit, and was happy to be the subject of the pilot interview. Where possible, the researcher attended the postnatal clinic with the intention to speak personally to the mothers. A further batch of ten letters received no response and it was decided that other measures were necessary.

The researcher attended a postnatal mother's group near the branch surgery to talk to the women about the research. This produced five volunteers. Attendance at a similar group at the health centre led to the further recruitment of a new mother willing to be interviewed. As a result some of the women were more than 12 weeks postnatal, as stated in the inclusion criteria initially, as the mothers could attend the group until the baby was six months old. However, this was not seen as a disadvantage as some were now returning to work and had new issues to consider. Recruitment remained slow and the difficulties of encouraging postnatal women to take part meant the final total was 15 rather than the planned 20. The woman who was the subject of the pilot interview was interviewed again at the end as a return to the field, enabling the researcher to gather updated information on her progress and comments on concepts added from other interviews. Difficulty was experienced recruiting ethnic minority groups and teenage mothers. Although personal invitation was employed for these groups, it was only possible to persuade one mother from an ethnic minority to be part of the study. No teenage mothers agreed to take part in the study. Generally, however, personal invitation was a more successful approach for recruitment than letters.

4.5.2 *Recruitment of health professionals*

In recruiting for the focus groups the researcher contacted practitioners personally to explain the study and ask them to participate. They were shown a copy of the information sheet (Appendix 6) and the protocol (Appendix 8). Where possible practitioners who were allied to the practice were selected, however, one continence nurse came from another area. No practitioner refused the opportunity to participate, although not all actually attended.

4.6 **Methods of Data Collection**

This study used grounded theory interviews. Grounded theory, as has been stated, should increase knowledge by generating a theory grounded in the data and not just confirm something that already exists (Heath and Cowley 2004). Grounded theory interviews do not fit with any other interviewing strategy. They are usually conducted using a short topic guide around the area to be discussed. From a loosely structured beginning, the number of topics grow as new information is disclosed and yet the interview must also still allow for complete freedom of expression for the individual. Research tools allow the researcher to gather the required information or data and it was important to consider what was required from the research and what was already known as part of the selection process (Morse and Field 1996). The selected tools in this instance needed to obtain the views and experiences of the user and explore the interaction with health professionals. The study also aimed to identify other treatment approaches that may be more acceptable using the evidence derived from the data, therefore the tools needed to have the ability to generate this information. To achieve the aims within a qualitative framework the following methods were used: interviews, observation, focus groups and a urinary symptom scoring tool. Each of the methods used are presented in detail.

4.6.1 *Interviews*

The data collection method selected for the postnatal women was interviewing. The women were the major focus of the research and, as demonstrated by the literature review, little was known of their views on this subject. The subject of the research should dictate the method chosen, in this instance a possibly sensitive subject was under exploration and the method needed to account for that, private one-to one interviews may, therefore, be more acceptable to participants (Charmaz 2006). Robson (1993) describes interviews as “a flexible and adaptable way of finding things out” which allows the possibility of picking up on verbal clues and enlarging on unexpected responses which may not be on the topic guide. A qualitative researcher also enters the world of the patient, for example, interviewing the women in their home gave further insight by observing behaviour and interactions in their own environment (Cirgin-Ellett and Beausang 2002), particularly if other family members were present. The type of information needed is important and Kvale (1996) describes two types of interviewer; the miner who seeks buried knowledge or “nuggets of essential meaning” and the traveller who undertakes a journey collecting information along the way from those he meets to relate later. In this study the interviewer can be described as a miner, the theory being the nuggets of meaning. The theory can be seen as a construction site of knowledge to be built upon as information is gleaned (Kvale 1996).

Interviews can be one of three types: structured, where the researcher has a list of questions similar to a questionnaire, semi-structured, where a limited topic guide is used and the researcher is free to enlarge relevant issues allowing the subject to talk freely, and lastly unstructured, which have a topic but no structure so both interviewer and interviewee can let the conversation develop in any direction. Unstructured and semi-structured interviews allow for greater flexibility (Polit et al 2001). In the situation where the researcher has none of the

answers thus far, an unstructured approach is advised (Polit et al 2001). Structured interviews are usually only used if the subject is well known already.

One advantage of interviews is that they can be recorded and therefore examined in detail at a later date. They can be face-to-face, on the telephone or as part of a group and are used widely in qualitative research. However, there is skill needed to guide the interview, keeping to the subject and leading the conversation in a subtle way to ensure a broad relevant response (Sullivan 1998). Interviews are undoubtedly time consuming, they require careful preparation and proper transcription and analysis can take some time. Even with careful work, it may be possible to misinterpret the meaning of a comment made by an interviewee when reading the transcript later (Burnard 1995). Field notes, therefore, can also be invaluable to give further insight. The latent content of an interview can be very revealing, for example, facial expressions or hesitation, and the use of field notes with semi-structured interviews can produce rich data (Sullivan 1998). It is also important when reviewing transcripts to critique personal interview technique (Dearnley 2005), for example, data can be missed by not allowing the patient to keep talking or missing verbal cues. A novice researcher may struggle to follow the conversation, particularly if the interviewee is speaking quickly and both interviewer and interviewee may also be nervous (Hand 2003).

It can also be difficult to keep personal knowledge and opinions from the conversation (Hand 2003). For this project the researcher (a practice nurse) was interviewing participants who may consult in the clinical situation for health issues. In addition, some were already known to the researcher, this is further discussed under reflexivity. The pilot interview highlighted that participants may ask for guidance regarding any symptoms. The grounded theory process aims to allow for a theory to develop based on information given by the patient and therefore the

researcher should not offer any views or information during the interview. If patients did ask questions they were told that further discussion could take place after the interview or, where possible, the question was turned back to the patient using counter questions such as, “what do you think can be done?” Through the course of the research, a decision was made to carry a written information leaflet used by the continence clinic which could be given to the participant after the interview if they requested one. As a working clinical nurse it felt wrong to offer no help having encouraged the participant to admit to symptoms given the concern that help may not be sought independently.

Improvement in interview technique increases data quality. This is, therefore, a very important issue, however, little is written on interview protocol (Price 2001). Indeed Strauss and Corbin (1998) centre on detailed analysis, giving much less attention to the gathering of the data. Conversely, Charmaz (2006) examines the way in which the interview can be used in “gathering rich data”. If the interview technique hinders data collection the research may be flawed. Common pitfalls include closed questions and the interviewer filling silence too quickly instead of waiting for the participant to speak again first. The researcher should listen to the tape immediately after the interview to make notes, and start developing an insight for the information imparted. Verification of the transcript with the tape should take place as soon as it is returned, in addition transcripts may need to be reviewed several times to ensure accuracy (Charmaz 2006).

4.6.2 *Theoretical Sampling*

Sampling is by convenience initially from among the selected research population and, thereafter, theoretical sampling is employed. Theoretical sampling is used to widen the emerging theory as much as possible. It is guided by emerging themes from previous

interviews using constant comparison (Tuckett 2004). The researcher reads each transcript, adds new information to the topic guide and then interviews more people from certain groups or types (e.g. different ages, types of delivery and parity) to enlarge the ideas and is thus constantly comparing data from previous interviews. Occasionally the researcher will go back to a previous interviewee if a new idea is raised to obtain further views. Charmaz (2006) re-interviewed several participants in her study regarding chronic illness asking more focussed questions in the light of information gleaned in interviews with other participants. This continues until the researcher feels that no new information or elaboration of existing information is emerging and that as many types of individual have been interviewed as possible. At this point there is said to be data saturation (Charmaz 2006).

Determining sample size for a qualitative project can be an issue. Unlike quantitative research there is no set way to determine exactly how many people should be interviewed and the principles of sample selection depend on two issues (Morse and Field 1996). The first is adequacy; enough data must be obtained to give a rich and full description of the subject being investigated, preferably to saturation. Secondly, the participants must be appropriate and able to satisfy the theoretical needs of the research. Random selection may not produce relevant information. Morse and Field (1996) suggest that without both of these the validity and reliability of the research may be questioned. A qualitative textbook may quote average sample sizes for different types of study, but all make the point that when theoretical sampling is used size should be based on data saturation and this cannot be quantified (Polit et al 2001, Silverman 2000, Cresswell 2003, Straus and Corbin 1998). Difficulties can be experienced when applying for funding, as sample size is required to estimate funding needed to complete the study. Morse (1994) proposed overestimating sample sizes to ensure adequate funding is allowed and suggested an average figure of 30-50 interviews for a grounded theory study. However,

when Morse later discovered that some researchers had taken the average figure literally and produced very unwieldy amounts of data, she produced a short paper to further clarify the issue (Morse 2000). The following headings identified the factors to be considered in determining sample size according to Morse (2000);

The scope of the study

The study had a wide scope and therefore it was important to ensure that while enough data was obtained to reach saturation, analysis methods focussed on identification of the main theme. This was also true of the focus groups with health professionals.

The nature of the topic

Morse (2000) suggests that if the topic is clear and easy to identify it may be possible to have a smaller sample, however, if it is a more obscure subject that is more difficult to understand a larger sample may be needed to produce enough data. This study researched a difficult hidden subject and, therefore, in-depth interviews were selected to attempt to uncover hidden knowledge, continuing until data saturation.

Quality of data

While the sample size is important, it is equally important that the data obtained is worthwhile (Morse 2000). Some interviewees do not have much to say which can lead to very little usable data thus necessitating further interviews to enlarge the data set. The study aimed to interview at least three participants of each type encountered (e.g. first-time mothers, older mothers, twins, etc.) to broaden data and make allowances for those who did not want to say much. This was exceeded in several cases.

Study design

Morse (2000) suggests that choice of study design influences sample size. Methods that have the potential to generate a lot of data from each participant may need a smaller sample. The use of in-depth interviews, as in this study, may reduce the need for a large sample.

The use of shadowed data

This is a term for the inclusion of information given by a participant about the experiences of someone else known to them. In this study, shadowed data was a frequent occurrence, many of the women mentioned older female relations when talking of urinary symptoms. It is suggested that the use of a certain amount of shadowed data can enrich the data, but ideally should be verified, and not included as part of the sample size (Morse 2000).

Morse (2000) therefore suggests for grounded theory studies an average of 20-30 interviews but adjusted up or down depending on the factors above. The aim was to interview about 20 individuals. However, due to the difficulties of encouraging postnatal women to take part the final total was 15.

4.6.3 *Theoretical sensitivity*

Theoretical sensitivity is the amount of knowledge the researcher has on the topic prior to undertaking data collection, which will increase sensitisation towards an emerging theory (Glaser and Strauss 1967). As explored above, the chosen methodology for this study had an emphasis on theory generation, in particular, around the symbolic nature of any social interactions, and sensitivity to the topic needed to be kept to a minimum (Glaser and Strauss 1967). The notion that the researcher-practitioner can be somehow “theoretically sterile” is difficult to uphold when using Glaser and Strauss approach and this has possible implications

for the interpretation of the data (Strauss and Corbin 1998). If grounded theory appears to be the appropriate method to answer a research question it should be possible to find a way to use it flexibly, not to do so restricts practitioner-researchers who have a valuable perspective to offer. Level of sensitivity was monitored by limiting literature reviews and restricting other information gathering activities such as attending lectures, reading specialist journals or discussing the subject with colleagues.

There are other issues that affect sensitivity. Previous research with older women and the consequent literature review required for that gave the researcher prior knowledge of the long-term effects of incontinence and attitudes towards it in older women (Wagg et al 2007a). Clinical practice inevitably imparts some knowledge, indeed this stimulated the research initially. Finally, as the researcher is a mother personal experience was obviously unavoidable. No other research in the area was studied until the interviews had been completed. However, the researcher was still involved with prior research on incontinence in older women including preparation of papers and conference presentations.

4.6.4 *Constant comparison during interview process*

Grounded theory methods could be described as analytical strategies (Charmaz 2000), and constant comparison of data during data collection was an important aspect of this. This has also been alluded to under theoretical sampling (above). After each interview new information from the data were added and compared to that already noted. New areas were added to the interview topic guide to help build the theory. This meant that the topic guide became longer with each interview and care had to be taken to ensure it did not become purely a structured interview.

4.6.5 Approach used in this study

As stated above, the data collection method selected for the postnatal women was interviewing. It was important that the interviewee felt comfortable during the interview, therefore a choice of venue was offered. Interviews were offered; at home, at the surgery, or any other setting as desired by the interviewee. Privacy was ensured if the surgery was selected for interview, to facilitate good rapport between interviewee and interviewer (Clark 2006) and time was spent prior to commencing the interview in general conversation and explaining the research. An appointment was agreed at a time that suited the participant, which they were assured could easily be changed if it became inconvenient. At the start the women were asked to sign a consent form (Appendix 9) which explained that the interview would be tape recorded unless they objected, the tape and any transcripts would be kept securely away from the surgery premises to ensure confidentiality. Also, they could stop at any time if they changed their mind about participating. The women were given a copy of the consent form, which listed the researcher's contact details in case they had any concerns related to the interview or research at a later date. The introductory letter (Appendix 7) had explained the purpose of the study and what would be required of participants. The women were given the opportunity to raise any queries about the process or research if it was unclear. The section on ethical considerations later in this chapter gives further detail on these areas.

The interviews were conducted using the basic topic guide (Appendix 10). Women often started talking again after the recorder had been turned off and occasionally made some very important comments. In hindsight this may have been related to the fact that the recorder was no longer running. Notes were made after the interview on these occasions, and in addition, a comment sheet was completed to review the process at the researcher's first opportunity following the interview, for example, after leaving the participant's house, to ensure good recall.

At the end of the interview the woman was thanked for their time and asked to contact the researcher or their own general practitioner if they had any worries regarding urinary symptoms. The tapes were listened to carefully immediately after the interview to get a sense of the response from the interviewee and assess the technique of the interviewer. It was noted that some tapes were a little difficult to hear due to the microphone range being less than described and therefore an extra external microphone was purchased.

4.6.6 *Sensitivity considerations*

Dealing with a sensitive subject can present difficulties when recruiting for research (Gibson 1996), for example continence issues may be embarrassing and upsetting to some. Occasionally, in this instance psychosexual issues may be apparent, for example, particularly if leakage occurs during intercourse. Other sensitive issues may be raised and the researcher must be prepared to cope with a distressed patient and abandon the interview if necessary (Clark 2006). Some interviewees may be more sensitive than others, there must be awareness of this and a clear strategy to cope with any concerns the women may have (Gibson 1996). The general practitioners were aware that some women might consult with symptoms.

4.6.7 *Focus groups*

For the health professionals focus groups were selected as the method of data collection. Time was limited which precluded individual interviews and it was hoped the interaction between different health professionals would produce some useful debate. Focus groups are a qualitative research method using small groups of people to discuss a certain topic, often to explore a new idea or gain insight into users understanding of a topic (Krueger 1994). Authors differ widely regarding the ideal number of participants in a focus group, from seven to ten (Krueger 1994) to five to fifteen (Polit et al 2001) and six to twelve (Bowling 1997). It is

recommended that focus groups for academic purposes have six to eight participants (Krueger 2003). The facilitator employed to undertake focus groups for previous research (Wagg et al 2007a) recommended eight as a good average, suggesting that more could become unwieldy. It is an efficient way of gathering large amounts of data at one time and allowing good interaction on a particular topic, however, care must be taken by the moderator to encourage everyone to join in while avoiding excessive control (Polit et al 2001).

It has been suggested that not enough care is taken with analysis and that focus groups may be seen just as a quick way to obtain large amounts of data (Reed and Payton 1997). Indeed Webb and Kevern (2001) express concern that focus groups have been used inappropriately, and that the application of this method is poorly understood. Particular concerns were the use with phenomenology, which was felt to be incompatible, and grounded theory where it was felt that true grounded theory analysis was seldom followed. Care was taken, therefore, to verify, analyse and code the transcripts of the focus groups in exactly the same way as the interviews to avoid criticism. Group dynamics should also be considered; people will interact differently if they are strangers than if they already work together (Reed and Payton 1997). Interaction is the key to the method; others in the group can confirm or refute information, which increases validity (Krueger 1994). Greater spontaneity may also lead to disclosure of information that would not be obtained by any other method (Barbour 1999). Two focus groups of health professionals were conducted. Unfortunately, although it was intended to have a general practitioner at each group neither managed to make it on the day. A semi-structured interview was, therefore, conducted with one general practitioner at a later date.

Time was limited which precluded individual interviews and it was hoped the interaction between different health professionals would produce some useful debate. Two groups were

held, one of four and one of five. The focus groups were held in the surgery and were time-limited to one hour and lunch was provided. A practice nurse and a general practitioner were invited to the first group but did not arrive and a general practitioner was invited to the second group but again did not arrive. A general practitioner was interviewed at a later date. This made the groups smaller than intended, nevertheless useful data were generated. Confidentiality was discussed at the start of each group. In addition, as is usual with clinical meetings such as this it, was agreed that the information disclosed should not be discussed elsewhere. Participants were informed that they could leave at any time if they felt uncomfortable and no-one objected to the tape recorder. All were shown the protocol (Appendix 8) and information letter (Appendix 7) that had been given to the women to enhance understanding of the purpose of the group and ensure consent was informed. Further information regarding this is included in ethical considerations later in this chapter.

4.6.8 *Observation*

To enrich the interview and focus group data some observations of women and health professionals were undertaken. Observation is an effective and valuable research approach which can easily be combined with other qualitative methods (Caldwell 2005). Observation was undertaken in an antenatal clinic, which allowed observation of both patient and health professional, and a postnatal group. There are several types of observation. The researcher may be a complete participant in the setting, here the role as researcher may be unknown, or the researcher may be a participant but have a stated research role also. At the other end of the scale the researcher may have a small participatory role but be largely, or totally, an observer (Cresswell 2003).

Observation is a very direct method of data collection; the researcher can watch the interaction of the subject with their surroundings. However, there is a danger of the researcher affecting the interactions of the participants by being there (Robson 1993). The subject may speak or behave differently if they are aware of being watched. Conversely, respondents may give a biased account when questioned about a subject but naturally reveal something else under observation (Fitzpatrick and Boulton 1996). Careful field notes are needed of observations and the researcher's interpretations of events to avoid bias (Fitzpatrick and Boulton 1996). One disadvantage of a single observer must be noted: the findings rely on the subjective observations and reactions selected by that researcher and may be biased. In this instance the researcher is interested in urinary problems and may have missed other verbal clues if care was not taken. The use of video-recording may help with this problem (Caldwell 2005). Funding was not available for video-recording in this study.

For this study the researcher asked to sit in on the antenatal clinic "to see what happens in an antenatal clinic for research purposes" and acted as observer only. The women were given a letter in reception informing them that a researcher was sitting in to observe the function of the antenatal clinic and given the option for the researcher not to be present. Nobody selected that option. The information sought here was the process of the antenatal clinic, interaction between midwife and mother, and the health information imparted. Information was noted on the setting, the participants, the questions asked and by whom. Of particular interest were questions or comments about pelvic floor muscle exercises or urinary symptoms, and also any mention of maternal health in general.

The researcher also observed two postnatal groups; one was quite small and held on the surgery premises and the other very large held in a community hall producing very different

experiences. Information sought here was the interaction between women, and in particular the dynamics of the group and the relationship to the leader of the group.

The observational sessions were not tape recorded but notes were taken of questions asked with some comments being written word for word. In addition, notes were made on interactions between participants and the settings. This information was incorporated in the grounded theory analysis, the memos and notes being examined for relevant concepts that could be included in the analysis.

Also, in order to reach a better understanding of the subject under research, qualitative researchers may employ a number of other interpretive practices (Denzin and Lincoln 2000, Introduction). Using interpretations from other unspoken parts of the findings, including body language and other verbal signals such as laughter, can enrich the findings but is always treated with caution as it is an inference of the researcher and not fact (Robson 1993). These findings are referred to as the latent content. This gives further background and aids a deeper understanding of the constraints and other issues which may influence reactions and actions which the subject may not vocalise.

4.6.9 *Symptom scoring tool*

The researcher aimed to identify the relationship between the information provided in the interview and the perceived symptom level as measured by a symptom score. In addition it provided rich information about the contrast between women's interpretation of the bother of their symptoms and the symptom score. This information may give valuable insight into the symbolic world of the women by illuminating the differences between actions and perceived symptoms. The scores were not totalled until after the interview as it was anticipated knowing

the score might possibly influence the interview. However, consideration needs to be given here; while short questionnaires may stimulate topics for the interview it may also adversely influence the responses of the women.

There are two issues to consider here. Firstly, the validation process; a validation exercise may be conducted against a tool that has not been shown to have good levels of evidence itself or may use participants already receiving treatment for urinary symptoms (i.e. a different group). Validation may only be conducted once in spite of changing times and use of language and the tool may over time become less valid (Coyle and Williams 2000). Therefore secondly, although a well validated questionnaire should give high levels of precision not all will have good levels of evidence (Donovan et al 2005) and others have found that the relationship between scores and patients measured symptoms can be poor at times (Coyle and Williams 2000, Kirschner-Hermanns et al 1998). In addition, individuals may have different perceptions of what constitutes a bothersome symptom, and may not consider them an issue or feel that they warrant professional help (Shaw et al 2001). Health professionals may also overestimate the impact of urinary symptoms on the individual. Frameworks exist for studying illness behaviour (Shaw 1999) and might be a better way of evaluating how people react to illness. This area is further explored chapter 10.

There are a number of urinary symptom measurement tools available. As the tool's purpose was to form an adjunct to the data collection, it needed to be specific to the condition under exploration as well as being quick and easy to complete. Although the urinary status of the women was unknown, the tool was not intended to diagnose or assess urinary symptoms and no treatment was to be offered as a result of the score. Other measurement tools considered but not selected for this study were the Kings Health Questionnaire (KHQ, Kelleher et al 1997)

and the Bristol Female Lower Urinary Tract Symptom Questionnaire (B-FLUTS, Jackson et al 1996). Both were well validated and respected but were judged to be too long for the purpose of this study.

The short forms of the Incontinence Impact Questionnaire (IIQ) and Urogenital Distress Inventory (UDI) (Shumaker et al 1994) were also reviewed, however, the emphasis with these tools seemed to be based on the definite presence of symptoms and the prospective interviewees would not necessarily have symptoms at all. The Female Urinary Symptom Score (FUSS) questionnaire appeared more suitable for the general population whose status was unknown. In addition, this questionnaire was in use in the local continence clinic at the time. This was therefore the tool selected.

The questionnaire was originally designed for use with males (International Prostatic Symptom Score, I-PSS) (Barry et al 1992). It had been used unchanged for women (Desgrandchamps et al 1996), however, the two most common voiding disorders for women were stress and urge incontinence (Perry et al 2000) and these were not part of the questionnaire. In addition, a study of elderly men to test the specificity of the I-PSS used women as controls and identified that the women scored higher for frequency and urgency while the men scored higher for the obstructive symptoms (Chai et al 1993). The research team involved in a study with older women (Wagg et al 2007a) included a continence nurse, two general practitioners, a practice nurse and a methodologist. From their discussions the I-PSS questionnaire was adapted and a validation exercise (Wagg et al 2007) was conducted against the KHQ (Kelleher 1997) of the new version of the FUSS. The KHQ was selected for validation due to its extensive use in multinational trials and had proven reliability and validity. The FUSS is a simple one page, Likert style scoring system, comprising seven symptom questions and one quality of life

question. The resulting score is graded (0-8 = mild, 9-18 = moderate, 19 and above = severe). The use of a global quality of life question may be controversial. However, it was identified that quality of life correlated well with all symptoms ($r = 0.77$, $p = 0.001$), with obstructive symptoms ($r = 0.53$, $p = 0.001$) and irritative symptoms ($r = 0.67$, $p = 0.001$) in a trial using the I-PSS in females (Desgrandchamps et al 1996). The original I-PSS had undergone extensive validation and contained two global bother questions. The six question version of the I-PSS which did not contain a quality of life measure was used to predict response to the two bother questions using a general linear model. The scores explained 58-61% of the variance ($r^2 = 0.58-0.61$) in ratings of global bother caused by the urinary symptoms (corresponding to $r = 0.76-0.78$) (Barry et al 1992). Both questions performed well and one was selected for the final version of the I-PSS. Results showed that men mostly reported more bother the higher the symptom score, although no statistical results are reported. In addition, a trial of women with undiagnosed problems in general practice revealed a very strong association with symptom level as measured by FUSS (Wagg et al 2007a). Those participants who reported a positive reduction of two or more points in quality of life score after intervention recorded a mean overall decline in FUSS of 4.4 points.

4.7 Combining methods within a qualitative paradigm

This research is based on interpretive inquiry, the aim is to interpret or understand the chosen subject and how the participants view it using a number of qualitative methods, rather than adopting a scientific viewpoint. The interpretive researcher accepts that other influences such as the particular interests of the researcher or even the interpretations of the participants may influence the information obtained arguing that there cannot be theory-free knowledge or observation due to the life experiences of both researcher and participant (Smith 2008). Even grounded theorists now accept that it is not possible to be completely “theoretically sterile”.

Looking at the same subject from different angles helps to increase the depth of the information obtained and makes allowances for the possible effect of prior knowledge or experience. From an existentialist viewpoint, participants are free to choose how they respond to conditions within their existence as they relate to the culture in which they live (Johnson 2008) and it is these interpretations that the researcher seeks to understand. It can be seen, therefore, that a method that allows for more than one type of data collection is essential here to allow the researcher to have greater understanding of the behaviour of the participants.

There were certain tensions that arose between the design and methodology in the study including the combination of methods within a study in particular where different paradigms are employed, the place of literature review within the study and the possible conflict within the practitioner/researcher roles. These areas have been explored below.

4.7.1 *Tensions within the addition of a quantitative method*

Caring is a social activity and qualitative research aims to enter the social world of both carer and patient (Stevenson et al 2004). Qualitative research has its origins in the human disciplines and is now an area of enquiry in its own right, described as a complex family of terms and concepts (Denzin and Lincoln 2000, Introduction). However, a researcher may employ several data collection methods within one paradigm and some large projects may use both qualitative and quantitative methods. For example, when Chiarelli and Cockburn (2002) conducted a randomised controlled trial of an intervention to prevent urinary symptoms in the postnatal period they also undertook a qualitative study to assess women's knowledge and intentions regarding pelvic floor muscle exercises (Chiarelli et al 2003).

The quantitative element was used in the study as an adjunctive method to aid exploration of the women's experience (FUSS questionnaire, Appendix 5). Mixed method research can be employed where collecting diverse types of data will increase understanding of a research problem (Cresswell 2003). It is possible to increase validity of findings by using additional methods (Polit et al 2001), however, it is most important not to allow this added data collection method to negate grounded theory methods.

It is often hoped that the combination of two methods will produce more than one method would in isolation, in practice this can be problematic and there are two reasons for this (Morgan 1998). Firstly, combining the two data sets can be seen as a technical problem and secondly, there can be a perceived conflict between paradigms. Also, using convergence as a goal has been less popular since the late 1970s, firstly, because there can be confusion when the two data sets do not converge and, secondly, when there is convergence some researchers have criticised the amount of time and resources spent on proving the same point. Complementarity (where the strength of one method enhances the performance of the other) is now more popular but has also caused confusion due to a lack of clear definition (Morgan 1998). There are clear advantages for health care research which is often complex, for example, in a formative mixed method project qualitative research was used to provide detail and specificity while quantitative research allowed for prioritising of themes (Strolla et al 2005). However, issues such as the responsibilities of the individual members of the research team and the necessary qualities of the leader are often difficult to resolve. In addition, one group of researchers may have to play a secondary role in the project, which can lead to discord (Morgan 1998).

4.7.2 *Methodological Triangulation*

This section is added to clarify where this study sits methodologically as far as triangulation is considered. Methodological triangulation is the use of multiple (two or more) methods to study a single problem (Shih 1998) and seeks to increase understanding of a phenomenon by combining different methods of enquiry to create an explanatory framework (Moran-Ellis et al 2006). This approach was originally developed in the late 1950s as a tool to overcome weakness in qualitative research at the time (Bradley 1995) and was used then to add to the rigor of the research.

Some methods do often use several data collection approaches (e.g. phenomenology and grounded theory), while others normally employ one only. There is controversy around the term “triangulation”, the term has been used interchangeably with integration or mixed or combined methods; this is felt by some to confuse structure and process (Moran-Ellis et al 2006, Williamson 2005) and there are other types of triangulation (e.g. theory or data triangulation) which are not discussed here. There are two types of methodological triangulation; within-method which involves one paradigm only or between-methods which involves quantitative and qualitative approaches (Williamson 2005).

Methodological triangulation should not be seen as a way of increasing validity, there must be rigor within the triangulation (Bradley 1995). A clear research question and approaches that are complementary are essential and each element must be conducted and analysed in a robust way (Bradley 1995). Each approach should make its own separate contribution to the story and serve to deepen and widen the knowledge of the phenomenon and may increase the rigor of other data collected. Convergence of the data produces a theoretical framework (Bradley 1995). In this project, although different methods are used (interviews, focus groups and

observation), they are all analysed within the same method, that of grounded theory and are looking at the same issue, just from a different angle. The addition of a small quantitative element was included to broaden the data. This study is, therefore, using mixed methods, not triangulation. In true triangulation different issues about a particular problem are studied and the results are drawn together to complete a framework.

4.7.3 *Tensions within the practitioner/researcher role*

There were tensions between the roles of practitioner and researcher. Dealing with clinical questions asked by participants has been discussed in the section on interviews. As a practitioner the aim was to develop and expand upon the limited amount of previous publications and work in this area in a thoughtful, practical and applied way. In the context of practice there was a possible tension within a symbolic interactionist framework of meaning and understanding and the clinical base of caring. In addition, as discussed above, it was not possible for a practitioner to come to this project theoretically sterile. One way to move the work forward and provide good evidence of women's experiences to enable change in practice was by undertaking robust research to provide a basis for developing a new intervention.

As a researcher the intention was to obtain a broad depth of data through personal interaction with the participant. There was a need to understand the perspective of the women, to engage in a relationship that allowed them to disclose views on incontinence. In a qualitative study the researcher values the contribution of the participant and this can lead to a respectful, deeper relationship, however this can have disadvantages as some shared implicit understanding of information may not be translated into words easily (McGinn 2008). A good patient/professional relationship can facilitate negotiation and power sharing which will help to develop the answers to the research questions in a mutually satisfactory way (Gallant et al 2002). In addition, the

researcher must spend time building the relationship to gain the trust of the participant but not at the same time exerting undue pressure to disclose information they are not comfortable with (McGinn 2008). However, the researcher will always affect the interviewee's responses to a degree, and the interview can be seen as a relationship between two individuals (Finlay 2002), the researcher must therefore also guard against allowing too much reflexivity to affect creativity within the interview creating a descriptive story which fails to produce a theory (McGhee et al 2007). Different approaches to grounded theory have developed and some are less prescriptive on this issue accepting the fact that more researchers are now working clinicians (Mills et al 2006, Charmaz and Mitchell 1996).

In addition, with regard to the patient/client relationship, it was also important to identify the attitudes and knowledge of health professionals in order to determine whether or not the interaction between patient and health professional was a factor in the women's decision not to seek help. It has been found, for example, that general practitioners' knowledge of assessment of the condition can be less than adequate (Shaw et al 2001).

4.7.4 *Tensions within prior literature awareness*

Tensions also existed between the chosen design and the undertaking of the systematic review before the grounded theory interviews. The place of literature reviews in grounded theory has caused much debate, confusion and anxiety for new researchers (McGhee et al 2007). In addition, the current methodologies do not advocate the same approach. The chosen approach of Glaser and Strauss advocated limited review of the literature prior to fieldwork. In addition, Strauss and Glaser argued over method and, in particular, the need for a literature review. Later work by Strauss with Corbin (1990) actually recommended a literature review to stimulate theoretical sensitivity, stimulate questions, direct theoretical sampling and provide

supplementary validity and a secondary source of data. Secondly, some literature review was necessary to provide justification for the study in order to complete ethics applications and research proposals. In addition, it is extremely difficult for a clinician to have no prior knowledge regarding a subject within their work environment. It was also important to be sure that an approach using grounded theory was appropriate; if there was already an adequate body of research on the subject another approach might be necessary. Issues raised here are also further discussed in the reflexivity section in chapter 10.

4.8 Data Management and Analysis

Analysis followed the hybrid model demonstrated by Charmaz (2006) which had its roots in the Glaser and Strauss methodology (1967). The transcripts were typed by a professional transcriber known to the University who observed complete confidentiality. Each transcription was returned by e-mail and the tapes by post. The tapes were verified with the transcripts, some medical terminology had to be corrected. The section below details analysis of transcripts after completion of each interview.

Analysis began as soon as interviewing started with constant comparison; that is comparing the information from the previous interview with the new information and adding to emerging theoretical material; this has been discussed above in the theoretical sampling and constant comparison in interviewing sections. Similarly, the first focus group discussion was analysed for emerging themes before the second group the next day. The general practitioner's interview was conducted several weeks later and the transcript was analysed separately for emerging themes and these are discussed separately.

At the end of the analysis of each tape, therefore, a list of codes was generated and this was examined further for emerging concepts. During the analysis process the data were returned to frequently by the researcher for verification and more field work could be undertaken as necessary at any stage of the analysis. This method continued with frequent return to the data and re-evaluation during the interview process until one main theme emerged from a number of concepts after all data had been reviewed. Care was taken to limit use of literature until the interviews and analyses were completed.

4.8.1 *Open Coding*

The transcripts of the interviews and focus groups were verified by comparison with the tapes before analysis started. It was vital also to read and re-read the transcripts initially to get a feel for the data (McCann and Clark 2003), and in addition the tapes should be listened to several times to assess emphasis, tone and confirm intention. Notes were made during this process of familiarisation with the data. Open coding was used to start the analysis and this is the beginning of theory development (Charmaz 2000). Manual analysis had been selected for this study and therefore cards were completed for the codes and concepts as they emerged. This proved a laborious exercise and purpose-designed computer software would be considered in any further study, however, it was a useful and important exercise in understanding the method itself. For each interview the text was read line by line to try to understand the meaning. Words that could identify an incident, statement or pattern were written down on the cards. The women's own words were used. Relevant codes were also highlighted on the paper copy of the transcripts.

4.8.2 *Memo writing*

The researcher may also note down thoughts about the data (known as memoing) to further aid analysis either during the interviewing phase or during data analysis (Charmaz 2000). A memo can be a note about an idea that occurs to the researcher or something of significance to the theory building, or can serve as a reminder to pursue a certain angle.

4.8.3 *Constant comparison*

As the reading of the transcripts progresses the lists of codes are examined again for similarities thus continuing the constant comparison commenced during the interviews. Similar codes are then put under a concept heading, which are added to as others are discovered (Norton 1999) in a process known as advanced coding. Some codes appear frequently and serve to reinforce the concept. However, it is important not to be too concerned about the number of times a code appears (Smith and Biley 1997), rather the aim is to collect a set of indicators which build a possibly significant concept. At any point in the process the researcher may feel the need to return to the field to gather more data on a particular concept (Charmaz 2006).

4.8.4 *Concepts*

Concepts are identified when a group of codes appear to be related as indicators of a certain phenomenon (Smith and Biley 1997). They should illustrate how subjects symbolise the way they think and integrate this with their social world. Concepts may be refined and changed as new findings emerge; this process continues until all codes have been added to a concept and no new concepts or codes are being discovered in the data.

4.8.5 *Final Analysis*

The analytical process continues as concepts are studied to find similarities. Concepts are grouped into categories and further refined until one core category emerges. This core category represents the theory. Verification of this is provided by returning to the data and examining any relationship both with the other categories and any existing literature. The resulting theory should represent the phenomenon it sought to discover.

4.8.6 *Use of computer software*

Use of software does not perform the role of researcher or analyst; it is to be used as a tool to aid the process (Woods and Roberts 2000). There are advantages and disadvantages to the use of software. Where there is a large data set it is invaluable in automatically undertaking the painstaking and time-consuming clerical tasks. However, documents often have to be formatted in a certain way and the researcher must adhere to the structure of the software programme (Woods and Roberts 2000). It also takes time to become familiar with the programme. Programmes such as NUD*IST (Non-numerical Unstructured Data Indexing Searching and Theorising) can undertake searching, coding and data retrieval for the researcher. However the researcher must still know the data well and complete the analysis to find the core category. There is still disagreement among researchers about the appropriateness of computer software for this purpose but it is generally accepted that the researcher's workload is reduced by the time saved using one of the software packages (Pateman 1998).

4.8.7 *Observation data*

The observational sessions were not tape recorded but notes were taken of questions asked and some comments were written word for word. Any points that were unclear were discussed

and clarified with the midwife after the clinic was finished. This information was incorporated in the grounded theory analysis, the memos and notes being examined for relevant thoughts that could be included in the coding analysis.

4.8.8 *Symptom scoring tool data*

The scoring system was useful in that it helped to explore the issue of illness behaviour, it was not completed with any intention of offering women care or under any assumption that care was required. The completed symptom scoring tools were totalled and the women classified for the research as mild, moderate or severe. This was related to the interview data adding further insight into women's perceptions of the bother of any urinary symptoms. The findings from this can be found in Table 11 in chapter 8 and they are also discussed in the context of the qualitative analysis in chapter 10. All women in the study were invited to visit their general practitioner if they had bothersome symptoms.

From the findings within the women's interview data three categories emerged from 30 concepts and from the health professional's data five categories emerged from 17 concepts. Observation data was used to verify emerging concepts. Finally one core category was defined from both data sets. The core category should encompass all the emergent categories and therefore define and express the emerging theory (Strauss and Corbin 1998).

4.9 Patient and public involvement

In addition to looking at the experience of women there was a need to investigate the possible involvement of the user in the development of any acceptable intervention. Patient satisfaction surveys are the commonest way of exploring patient opinion (Edwards 2002). However they

have limited use where understanding of complex issues is sought, poor response rates may also affect results and questionnaires often generate only superficial data (Coyle 1999).

However, it has been recognised that it is important to involve users in the research process (DH 2000a, Involve 2004). User involvement was initially ill-defined ranging from information-giving to full empowerment. In addition, it was viewed with scepticism by health professionals concerned the perception of user involvement would generate unrealistic anticipation of increased services (Poulton 1999). Health professionals were at times unwilling to share knowledge and power with the patient (Henderson 2003), which could curb the enthusiasm of patients willing to take responsibility for researching care input (Edwards 2002).

Several organisations now exist. The web-based James Lind Alliance, which was formed in 2004, aims to encourage non-industry randomised controlled trials which could utilise joint working with patients and clinicians. Currently a group within the Alliance is working on establishing and evaluating a partnership of patients, carers and clinicians identifying issues for research in urinary incontinence (Buckley et al, ongoing). This study was, therefore, seen as complementary to the ongoing work of the James Lind Alliance, adding further evidence to knowledge of women's experiences. Locally, at the University of Hertfordshire, the Centre for Research in Primary and Community Care (CRIPACC) has as a core theme running throughout the programme areas which is concerned with patient and public involvement and is in the process of becoming an affiliate of the James Lind Alliance. INVOLVE (www.invo.org.uk) functions as a resource and network to support and encourage users involved in research. National conferences are held to disseminate this work and regular newsletters are published. This study commenced prior to user involvement in research being fully operational but by seeking the women's views it does complement the work of the James Lind Alliance and give

voice to the women for whom a future intervention could be developed. There is a need for users to build upon the evidence base on consumer involvement in research, in addition there are clear benefits, in particular with regard to patient information and a shared understanding of the constraints evident for both user and carer (Minogue et al 2005). On reflection, user involvement would have been invaluable for this study and would certainly be employed in any further development.

4.10 Pilot Work

Conducting a trial run of elements of a study can highlight unforeseen difficulties and allows for refinement of method (Polit et al 2001). It is advisable if at all possible, particularly if a new questionnaire or measurement tool is being employed (Robson 1993).

One pilot interview was conducted. This was a first time mother who elected to be interviewed in the home. Discussing possible urinary concerns immediately sounded too harsh on the tape and therefore the interview schedule was altered slightly to give a more general introduction, asking about the baby or the general health of the women for example to encourage women to start talking. It was noted in the pilot interview that the researcher often talked over the interviewee and was inclined to ask closed questions, improvement was attempted in subsequent interviews. This was achieved by undertaking some dummy interviews which were recorded and appraised critically. For the first interview the microphone worked well and the tape was audible, this was despite a washing machine and baby being audible in the background. Clearly it was unlikely that the interviews would be able to be undertaken without the baby present with such new mothers. The transcript verified well with the tape and preliminary coding was undertaken. The pilot interview was included in the final analysis as no

major changes had been necessary. Given the difficulties in recruitment no further pilot interviews were undertaken.

4.11 Ethical Considerations

Ethics approval was requested and obtained from the East and North Herts local research ethics committee to undertake qualitative interviews about urinary symptoms in the postnatal period with women belonging to the research practice. In addition, approval was given to interview health professionals allied to the practice regarding knowledge and beliefs about urinary symptoms in postnatal women via focus groups. Permission was also obtained to use the Female Urinary Symptom Score (FUSS) with the women interviewed. It was stated that women with serious health problems would be excluded as would those who had a still birth or perinatal death or a baby with a health problem. Information regarding the research process, together with copies of all forms was provided for the ethics committee. Due to difficulties in recruitment, a return to the ethics committee was necessary to request permission to extend invitations to all practices within the town, rather than just one, as it was the intention to attend two postnatal groups that were organised in the town for all women. This request was granted.

There were some potentially sensitive issues. Although the women were not at any risk of physical harm some might have experienced psychological discomfort when discussing this sensitive topic and, therefore, available counselling services were identified and the referral process ascertained in case any woman needed help dealing with the issues. The local continence team were contacted and informed of the study and agreed to give advice and help as necessary. If a woman opted to be interviewed at the surgery, privacy was ensured by a notice on the door and making staff aware of the interview. Confidentiality was discussed with all participants and in line with the University of Hertfordshire regulations and local research

governance policy the following was agreed; that all information both written and electronic would be stored safely, in this case away from the surgery premises, all information would be kept for five years after completion of the study in case of enquiries and no participant would be able to be identified from the research. The researcher also undertook to publish the work to ensure that the women's participation had some meaning.

4.12 Quality and Trustworthiness

Quality is defined as a degree or level of excellence (Oxford Reference Dictionary 1986) and in research the level of quality gives credence to the study. Qualitative research offers the opportunity to examine complex, real-life situations (Morse 1999), but may be regarded as subjective and not worthy of note (Morse 2006). There is now increased recognition that more diverse types of evidence should be included in systematic reviews which could enable inclusion of qualitative data (Dixon-Woods and Fitzpatrick 2001). In an example from public health, Thomas et al (2004) illustrated that qualitative studies could increase the understanding of the views of the group selected for an intervention. Therefore, there is greater recognition today of the possible benefits in the use of qualitative research alongside quantitative research as previously discussed and consequently there is a need to explore means of evaluation in order to increase validity and rigour. Credibility is increased if all the process of the research is visible (e.g. field diary, clear description of original context), and the report of the project should be full enough to allow audit to increase transferability and dependability (Koch 2006). Kvale (1996) suggests quality criteria for each interview including the proportion of text spoken by the interviewee, clarification and expansion of issues arising during the conversation and verification of answers given. Although member validation has been suggested as a method for assessing validity this is not without problems, as previously discussed, due to the interviewees

either remembering inaccurately or embellishing the tale each time it is told (Sandelowski 1993).

Whereas quantitative research might use the terms reliability and validity to assess the worth of a study, by definition these criteria can be difficult to prove where qualitative research is utilised. Reliability is defined as the accuracy or consistency with which a certain tool can be relied upon to measure the components of the research question and validity is the level to which the selected tool measures what it was intended to measure (Polit et al 2001). Lincoln and Guba (1985) asserted that the conventional criteria did not fit with qualitative research, particularly where sampling was concerned, theoretical sampling for example could not be explained or quantified scientifically. Therefore more complex methods of evaluation have been developed in the desire to prove quality in qualitative research, these are discussed under evaluation. However, for some time this has been an issue that theoretical writers have tried to solve, Guba and Lincoln (1989) spoke of trustworthiness as a set of criteria that would judge the unique contribution to quality or goodness made by a piece of research, for example replacing internal validity with credibility and external validity with transferability. Qualitative research can therefore still be replicable if the process is clear and the terms trustworthiness and quality are used as assessment criteria.

More complex ways of evaluation have been developed in the quest for excellence. Computer software has been created, frameworks designed, and criteria listed. To increase credibility, qualitative research must be shown to be trustworthy against the easier to measure quantitative work which has “tidy” quantifiable procedures (Lather 1986). However, the emphasis on technical methods using computer software, which may be part of the desire to put qualitative research within the scientific arena, may lessen the aesthetic feel of qualitative research

(Sandelowski 1995). The use of qualitative research in systematic reviews has led to further development and discussion around the use of appraisal criteria, although there is continued debate about their appropriateness (Thomas et al 2004, Harden et al 2004). In addition, using criteria designed originally for another type of project can also be problematic if the fit is not good (Koch 1998). Beck (1993) has suggested that it is possible to evaluate qualitative research using the criteria: credibility, fittingness and auditability. Other authors have conducted evaluation using checklists including items such as study design, sampling, data collection and analysis (Blaxter 1996, Secker et al 1995, Boulton et al 1996). A framework has been developed also to clearly assess qualitative research evidence using 18 criteria including those already mentioned as well as other points such as how credible and transferable the results are and has knowledge been increased by the results (Spencer et al 2003).

Demonstration of a good fit between method and research question should be an important part of evaluation (Koch 1998) and Avis (1995) maintains that qualitative research should be defined by the usefulness of the results rather than a list of criteria. Proper evaluation methods can help to reduce the criticism of qualitative methods; that the results are accepted without question and are therefore not valid (Watson 2003).

4.12.1 *Grounded theory evaluation*

The study aimed to be transparent, auditable and replicable. A comprehensive research diary has been maintained throughout the study and is available for inspection. The recruitment process was stated and proper procedure with regard to informed consent and confidentiality has been followed. Comments sheets were completed after each interview. The original tapes were available as were transcripts of all interviews, both electronically and on paper. Dialogue used in the thesis was identifiable, by case number and line.

Transferability was ensured by the use of a qualitative method deemed to be appropriate and valid for the research questions. In addition, it was a well used and documented method and the specific data generation and analysis methods are clearly documented and therefore reliable. Credibility was ensured by the use of the participants' own words, in addition, as part of the chosen method, the participants were encouraged to direct the conversation. Also the data were returned to frequently during the analysis for verification. However, it had been decided not to return the transcripts to the participants for personal verification as discussed in the interview section. After analysis the literature was used to verify similarities. The quantitative tool used had been previously validated against a similar tool in general use (Wagg et al 2007). The samples and settings were clearly stated and adhered to.

Member validation (such as returning transcripts to the interviewee) has been suggested as a way of ensuring validity of the researcher's interpretation of the transcript, however, participants often change the story each time it is told and may embellish the tale and forget this when they re-read it, thus further confusing the issue (Sandelowski 1993). The researcher will have the opportunity to confirm unclear statements during the interview and the transcript is taken directly from the tape. While both interviewer and interviewee would wish for a true account of the interview, both parties have different perspectives and serious analytical errors may occur if the transcript is changed without a sound reason (Sandelowski 1993). Also subjects did not always remember accurately and were upset by some of the issues raised, being unaware of how the response sounded (Dearnley 2005, Kvale 1996). In addition, Kvale (1996) describes returning transcripts to interviewees as a re-interview as they will inevitably add comments and may elaborate on statements made at the time. Ethical difficulties may also arise where an interviewee wishes some material removed from the transcript, necessitating the removal of

valid material. It is possible to allow subjects to check emerging themes instead of viewing transcripts but this is not without difficulties either as the participant may not recognise the coded text as their own (Koch 1998). Having considered the available information it was decided not to return transcripts to the women.

Considering grounded theory in particular, the evaluation method of Beck (1993) was selected to assess rigour within the study. It uses eight research practice methods to validate research (in Chiovitti and Piran 2003), see Table 8 (below).

Table 8 Beck's eight methods of research practice for enhancing standards of rigour.

in Chiovitti and Piran (2003)

Standards of rigour	Suggested methods of research practice
Credibility	<ol style="list-style-type: none">1. Let participants guide the enquiry process.2. Check the theoretical construction generated against participants' meanings of the phenomenon.3. Use participants' actual words in the theory.4. Articulate the researcher's personal views and insights about the phenomenon explored by means of;<ol style="list-style-type: none">(a) Post-comment interview sheets used as a tool.(b) A personal journal.(c) Monitoring how the literature was used.
Auditability	<ol style="list-style-type: none">5. Specify the criteria built into the researchers thinking.6. Specify how and why participants in the study were selected.
Fittingness	<ol style="list-style-type: none">7. Delineate the scope of the research in terms of the sample, setting, and the level of the theory generated.8. Describe how the literature relates to each category which emerged in the theory.

Within this study four points concern credibility: Firstly the interview schedule was expanded as a result of comments made by interviewees. The transcripts were not returned to the participants, however, and this has been discussed above. During the analysis process the data were returned to frequently by the researcher for verification and more field work was undertaken as necessary at any stage of the analysis. The actual words of the interviewees were used as codes. After each interview a comment sheet was completed as soon as the researcher had left the interviewee, to ensure good recall. A personal journal of the whole project has been kept to detail progress and problems. Care was taken to limit use of literature until the interviews and analyses were completed.

Two points concerned auditability: The project clearly stated the criteria used to design and run the project and the recruitment process is specified.

The last two points refer to fittingness: The scope of the research was delineated. The sample as specified in the aims and objectives were postnatal women and were either interviewed in their own home or the surgery that they attended. The observations settings were in the normal places of the surgery or local community hall. The health professional's focus groups were conducted in a clinical setting. Each category discovered was justified by use of the literature after analysis.

4.13 Reflexivity

The addition of a reflexive account strengthens the evaluation of a research project (Koch 1998). The researcher also has the opportunity to reflect on areas of the study where concerns were raised. Use of reflexivity at all stages will minimise effects of prior knowledge in the

interviewer (McGhee et al 2007). The key issue in a project of this type regardless of the approach chosen is reflexivity and the researcher should constantly be reviewing the effect current work or reading might have on theory generation (McGhee et al 2007). Reflectivity means literally reflecting back on the project to identify influences that might have a bearing on the results and whether there has been undue influence from the actions of the researcher (McGhee et al 2007). This account is presented in chapter 10.

4.14 Conclusion

This chapter has defined the methods used in this study, including aims and objectives, research design, sampling, recruitment and methods of data collection and analysis. In addition, issues of reliability and validity, pilot work and ethical considerations have been highlighted. The following chapters 5-8 present the findings from the focus groups, the interviews, and the observations.

Introduction to findings chapters

The next four chapters detail the findings from the interviews and focus groups. From the original codes identified in the 19 transcripts, (16 women, [15 plus one woman who was interviewed twice] two health professional focus groups and one general practitioner interview) memos, and notes from observation of the antenatal clinic and postnatal groups, 47 concepts emerged in total and these were formed into 8 categories. Within each chapter the findings from the observation data and latent content have been referred to in the text to validate the women's comments and to place them within the relevant context rather than as a separate section elsewhere.

A brief explanation of the local population is included in this section to clarify the setting for the research. The practice has two surgeries and the two populations were very different. Histograms of the two populations are included as Appendix 11 and Appendix 12. Although the individual age bands were not markedly different, there have been considerable demographic changes on the newer side of town. Over the last ten years there has been a lot of new building on previous green land and a change in population from mostly elderly to a large number of young families. Many of these families would have moved in at about the same time and have children of similar ages. They may therefore, be more likely to bond and move beyond the superficial safe subject of the baby. As a consequence they may also be more likely to form smaller groups of closer confidants from among the large group where more frank discussion may be possible. In the old town, in line with government policy, any new building tended to be in small areas in the town where there was enough space for a property, known as infilling. The population of elderly was growing and two recent blocks of flats were retirement homes. New

mothers in areas such as this were likely to be more isolated and have more difficulty finding and making new friends with children of a similar age, particularly if they also worked. The old town was also near to the station and it may be that there would be a larger number of professional workers who would travel to London for work.

The first chapter details the categories and concepts identified from the two focus groups and one general practitioner interview. Each section is headed by one of the five categories and the concepts leading to that category are explored with relation to the transcripts. Each of the following three chapters represents one of the three categories identified from the interviews with the women and the underlying concepts are discussed in relation to the interviews transcripts. Each of the comments used has an identifying tape and line number and also the woman's occupation and Female Urinary Symptom Score (FUSS). As a reminder when reading these chapters; the mild category is 0-8, moderate category is 9-18, and the severe category is 19 and over. It was identified that some of the concepts were not mutually exclusive and there is therefore some overlap in places. It was interesting to note that often the women spoke in the future conditional as if they were generally accepting that there would be permanent changes to their state. All 8 categories from the grounded theory interviews and focus groups are presented diagrammatically at the beginning of chapter 9. Chapter 9 draws the information together to produce a core category that identifies the theory.

The chapters are;

- Chapter 5 Health professional views
- Chapter 6 Messages women receive
- Chapter 7 Seeking and understanding information
- Chapter 8 Responding to the messages leading to:

The relevant literature and the relationship to this analysis are largely explored within the discussion chapters, rather than in the findings chapters. This approach enabled the researcher to explain the findings systematically within the context of current theory and research and to integrate the categories consistently with the core category. Demographic details of the women interviewed are shown in Table 9.

Before each interview, the women were asked to complete a symptom score and each participant's score is included in Table 11 and with any comments within the text. The original purpose of the score (Appendix 5) was to develop a sense of the severity of symptoms on an objective level, however, this did not always match the subjective experience of the women. The rationale for the use of the symptom score has been discussed in the methodology chapter and the relationship to the actual stated symptoms is further explored in the discussion chapter. Of the fifteen women interviewed, seven were in the mild category (0-8) and nine were in the moderate category (9-18). The pilot interview participant was re-interviewed at a later date as a return to the field to obtain more information on the effects of any symptoms on working mothers and completed a symptom score each time. Only two of the women were not happy with their symptoms; one woman was at the lower end of the moderate category and was concerned only because she was shortly to return to work as a teacher, and the other was at the top end of the moderate category and although she stated symptoms were manageable she spoke poignantly about having to wear pads in front of her partner. Two women said they were happy as long as the symptoms did not worsen; they were both in the moderate category. The woman with the second highest score did not consider she had a problem at all. Information regarding the interaction between the health professional participants of the focus

groups is in the summary of chapter 5. Table 10 gives information on the participants of the focus groups.

Table 9 Demographic information of participants

Number	Parity	Delivery	Extra Information	Age	Delivery plus time (weeks)	FUSS Score
001 (pilot)	0+0	SVD	2 ^o tear Sutured	28	14	10
002	0+0	SVD (Epidural)	2 ^o tear Sutured Retained placenta	23	16	1
003	0+0	SVD	2 ^o Tear Sutured PPH, Foetal distress	28	12	8
004	0+1	SVD	2 ^o tear Sutured APH	26	18	13
005	1+2	SVD (prev LSCS) (Epidural)	No tear	41	24	3
006	0+0	LSCS	Emergency	28	24	1
007	2+0	SVD	Rapid labour No tear	33	12	9
008	0+0	SVD	Rapid 2 nd stage	30	22	10
009	1+0	SVD (prev. LSCS) (Ventouse)	Episiotomy	25	22	16
010	2+0	SVD	Twins 2 ^o tear	31	21	10
011	1+0	SVD	Rapid 2 nd stage	33	43	18
012	0+0	SVD	Waterbirth at home	31	20	7
013	5+0	SVD	Previous twins. Type 2 Diabetes	38	36	9
014	1+0	SVD (Ventouse)	Ventouse, episiotomy	33	20	10
015	0+0	SVD	Type 2 Diabetes	37	12	5
001 2 nd interview	0+0	SVD	2 ^o tear sutured	29	92	4

SVD = spontaneous vaginal delivery. LSCS = lower segment Caesarean delivery.
PPH = Postpartum haemorrhage. APH = Antepartum haemorrhage.

Table 10 Health professional participants of the focus groups

Speciality	Basic qualification	Years of experience with this client group	Mothers
Practice Nurse (PN)	1981	10yrs	yes
Health visitor (HV)	1972	20yrs	yes
Nursery nurse (NN)	1968	37yrs	yes
Midwife 1 (MW 1)	1984	20yrs	yes
Midwife 2 (MW 2)	1988	16yrs	yes
Continence nurse 1 (CN 1)	1984	17yrs	yes
Continence nurse 2 (CN 2)	1988	7yrs	yes
General practitioner (GP)	1979	25yrs	yes
Midwifery student (MW st)	2000	Student	no
Family planning nurse (FPN)	1972	18yrs	yes

Findings: Health Professionals

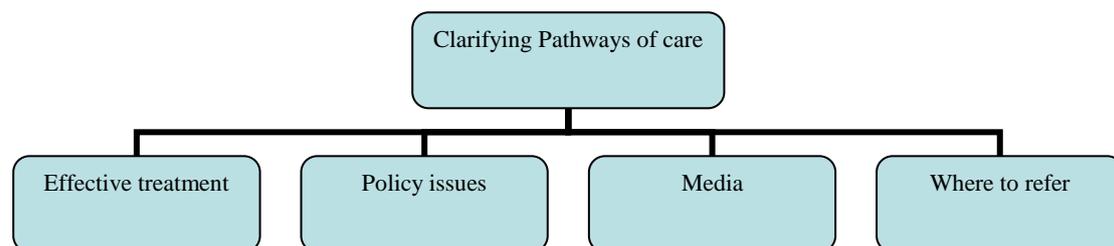
5.1 Introduction

In order to obtain the views and knowledge of the health professionals, focus groups were utilised. Participants were shown the study information sheet prior to the group sessions. Present at the first group were; a continence nurse specialist, a family planning nurse, a midwife, a nursery nurse, one observer (another researcher) and the moderator (the researcher). A general practitioner had also been invited but failed to arrive. It later transpired that she had been unable to get there because of a heavy visit list. The practice nurse who had agreed to attend did not finish her surgery in time to get to the focus group. The second focus group took place the following day, present were; a continence nurse specialist, a health visitor, a midwife, a midwifery student, and a practice nurse. Again a general practitioner had been invited but failed to arrive. One general practitioner was therefore interviewed at a later date. It was considered very important to include the views of a general practitioner and this still sits within the grounded theory methodology; it is the analysis method that is stipulated, various data collection methods are possible within the same enquiry (Charmaz 2000). A time length of one hour was specified as all the health professionals had very kindly given up a lunch break to come to the group and had other commitments that afternoon. The two focus groups and one general practitioner interview were analysed using grounded theory methodology. The findings from the focus groups produced 17 concepts which were grouped into five categories. The five categories were; clarifying pathways of care, clarifying education, improving communication, understanding actions and serious issues. Before each category there is a diagrammatic representation of the concepts that lead to the category. The chapter details the findings.

5.2 Clarifying pathways of care

This first category deals with issues that arose regarding knowledge of health professionals for treatment and its effectiveness, the national policy issues which impinged on delivery of care, the influence of the media and knowledge of referral pathways as illustrated in Figure 7.

Figure 7 Clarifying pathways of care concepts



5.2.1 *Effective treatment*

All those present were aware that pelvic floor muscle exercises were important but there were differences in knowledge of performance and effectiveness. A health visitor was unaware of the two different types (slow and fast twitch) and that both were necessary to help the pelvic floor muscles after delivery as she comments here;

HV “And also I didn’t realise about the exercises because I thought the pelvic floor exercise was clenching the muscles and releasing but I didn’t realise you also had to do it and hold for 10 seconds” [018, 456-458]

The continence nurse explained that she told patients to start with slow twitch and to add in fast twitch when they were proficient with the slow twitch exercises. Lack of muscle tone in the early days plus numbness after delivery meant that the women had difficulty with the exercises, often not being able to do them at all initially and not being able to contract for the full ten seconds. All practitioners present at the focus groups were aware of this fact as illustrated here;

CNS “It depends, when you examine somebody to what their muscle tone is like to how long you can get them to hold on bearing in mind when we get them I sometimes I wouldn’t get them to five or six seconds”

HV “When they’ve had a baby they wouldn’t be able to hold on very long would they?”

CNS “No but I get them to do the back passage and then the front passage together and pull up and count to five then relax for five and count to five again and so on, I wouldn’t worry so much about the fast twitch ones until they’ve got the hang of what they are doing” [018, 461-469]

With regard to known effectiveness, everyone thought the exercises would be effective but there were clear problems with compliance. Only two of the professionals mentioned that the exercises should be continued for life, one continence nurse and the general practitioner who also highlighted the value of Pilates as a good way of maintaining the strength of the pelvic floor muscles;

GP “It needs to be pushed to carry on exercises forever... Some of the women I see late in life have no muscle tone and if they had just carried on with the

exercises...I'm really pleased about Pilates becoming so fashionable,the pelvic floor is very much part of it because they are looking at core muscles" [016, 163-166]

5.2.2 *Policy issues*

There was clear confusion about roles and service provision. This varied between geographical areas as well. The midwives were unaware of the service provided by the continence nurses as they could only refer to physiotherapy if there were continence problems. There was a physiotherapy clinic set-up for those patients with a separated rectus abdominus and the midwife would often use this clinic to gain access for pelvic floor muscle assessment for patients, if they were already attending the clinic. There was a service maternity package for the women which included being referred to physiotherapy if necessary. Both continence nurses had at times been asked to speak to postnatal groups, but this did not happen so much now which both felt was disappointing. The practice nurse, who also ran the family planning clinic and saw women at their postnatal appointment, felt clarity was needed about roles and referral pathways. From this next excerpt it is clear there are differences between areas and that the process of referral is far from straightforward;

PN "I get confused between when if they are referred to physio then they get some exercises, but sometimes they seem to be referred to the gynaecologist, sometimes they are referred to urologists, where does urodynamics come in?"

CNS "I can't really speak about your hospital because I don't know yours but at ours they do two urodynamics sessions, the urologists have a session but also the gynaecologists have a session because they have access too. I think in your hospital it is done by the continence team and I suppose the consultants will have access to it"

PN "Right, and would the physios go down that line as well?"

CNS “At my hospital it’s only the consultants that can access it” [018, 413-422]

The midwife in the first group describes here a positive attitude towards new changes, with midwifery-led care being implemented and new training programmes designed;

MW 1 “But now’s the key time to get that in because the emphasis now, there’s the amalgamation of the two units and they are looking sort of low risk that end high risk this end and they are really into midwifery-led care, and so they are identifying training that the midwives need to provide that care, sounds daft I know that you’ve got training to go back to basics but bladder care is one of those things that you know perhaps if there was a session on that within the programme that would be a good start could be one of those.” [017, 139-143]

The midwife in the second group was less enthusiastic, declaring that proposed changes meant problems with staffing and adequate supervision of labouring women. The continence nurse who worked in another area also spoke about an incentive to get health visitors to ask mothers;

CNS 2 “We did this work with the health visitors, we were going to try and get them to ask when they did the three year check, to actually say to the Mums then to ask some questions about bladder and bowels, but...”

HV “Apart from they are abandoning the three year check aren’t they?”

CNS 2 “I know which is what I am saying. But it’s, it was just a way that the health visitor, someone had access and the children were sorted and they could try and sort themselves. We did a lot of work on that with health visitors doing it at that stage

HV "I'll bring that up at our staff meeting"

CNS.2 "We even produced a leaflet which never got published, I haven't got a copy now unfortunately. To be given out on the ward which did postnatal pelvic floor exercises when they went home for the first six weeks on what they should be doing"
[018, 573-591]

5.2.3 *The media*

The influence of the media both good and bad was discussed at length. Several of the group members were scathing about television adverts for continence pads. It was felt universally that they should also direct women to seek help rather than just go out and buy pads as explained by this continence nurse;

CNS 2 "And I also think the other problem is, I was watching TV the Poise advert, but it doesn't say on there come for help. It doesn't actually say you can seek help and if you think they have everything, they have long pads and mini pads its very available and it's being treated as normal" [018, 247-250]

The family planning nurse had this comment;

FPN "incontinence is seen as a joke now because of the Tena lady advert. It is used as a joke isn't it, I mean you reach your 50th birthday and then you get padded up with Tena lady and ride off!" [017, 324-325]

Assessment would determine whether the women had treatable conditions but it was felt that current advertisements gave the impression that the condition was normal and untreatable.

One of the midwives had this to say about pad advertisements;

MW 1 “I think they are very unhelpful aren't they, if there was a little added warning on it, you know this problem can be sorted, refer yourself to your GP for treatment, then fair enough, you can advertise it as much as you like but to just say, oh yes one in three, some will sort of think that it's normal, get on with it, this is how we're going to help” [017, 340-343]

The packaging of one brand did give the address of the Continence Foundation, according to the continence nurses. One thought the advertisements gave the women another way to deal with the problem without seeking professional help and the widespread availability of the pads (even in supermarkets) helped even further;

MW “but that's what its saying isn't it because like you say there is no contact number for help”

CNS 2 “No at least the Tena one does I think give you a number to ring so you can go and get some advice...”[018, 257-259]

CNS 2 “and if you look at the supermarkets they all do pads now, they all do the Tena range Sainsbury's even do their own range of continence pads, because I'm always looking out for this sort of thing” [018, 266-268]

The nursery nurse felt more comprehensive advertising would be beneficial to the patient but might affect, adversely, the sale of pads. Some of the women in the advertisements looked

relatively young, which was a reason for concern that a message showing pads were the norm for younger women was being portrayed. Conversely, however, one of the continence nurses explained that the average age of her clinic group was going down;

CNS 1 “I think that over the past sort of two years, that perhaps more are coming forward with the sort of internet based information, I do feel that younger women are much more likely to come forward now and not put up with it because my client age group is going down...it may not be immediately after delivery, perhaps two years down the line after they had their baby, they’ve seen it on the internet and they want something done about it” [017, 276-281]

5.2.4 *Where to refer*

As discussed earlier, there was confusion regarding referral pathways. Both midwives could and did refer to physiotherapy if they discovered a problem, however, new mothers were no longer seen routinely by the physiotherapist. This midwife illustrates how the system could be used to get women seen;

MW 1 “What we do is get them, we do it bit in the back door but we fill out a physio referral form and just send it under an SHO’s (Senior House Officer) name, they’ll sign it and we just send them off, as they are still under contract it’s a feasible way of getting them sorted.” [017, 74-76]

Once the midwife had discharged the mother, the general practitioner was responsible for referral and this would normally be to the continence team. Both continence nurses would also take referrals from health visitors and practice nurses if the correct information was provided.

Difficulties were encountered where referral was needed onwards to physiotherapy, gynaecology or urology as shown here;

CNS 2 “At –(local hospital) it’s only the consultants that can access physio too.”

AW “Right”

PN “So the physios get to a state where they say, no it’s no good the exercises aren’t working and then the next level up will be?”

CNS 2 “They will refer back to the consultant, they refer back to the GP. GP refers on to other services. if there’s no direct referral between physio, its like me, if a GP asks me to see a patient and I want them to see a physio I have to write back to the GP and ask them to refer them to physio.” [018, 422-430]

The family planning nurse also noted that the family planning clinic were not able to make onward referrals either.

It was clear some general practitioners were more interested than others and, in addition, some were not keen to refer women for treatment. The continence nurse in the practice area received a lot of referrals from one particular general practitioner who had an interest in the subject. However, a lot of doctors refer inappropriately at times, either through misunderstanding the problem, or because the appropriate investigations were not carried out before referral. The following examples illustrate this;

GP “Although in some ways a lot of GPs aren’t interested in continence and I do think there are still some GPs particularly some of the older men, that will say “Oh well

it's normal", not anybody here, don't get me wrong, but some of the older, who aren't interested in women's bits as it were..." [016, 190-196]

and

CNS 2 "Most GPs don't have the experience and we get referrals where the women have huge prolapses for example" [018, 476-477]

However, the general practitioner who was interviewed, when asked what she would do with a patient suffering urinary symptoms said;

"if it's a woman you check for a prolapse do the water check give the usual advice, sometimes do a scan but you have to wait ages for them" [016, 62-63]

Both continence nurses stated that simple treatments can be instituted effectively in primary care, sometimes without the need for hospital referral, but seldom are. In addition inappropriate referrals wasted appointments and increased waiting times.

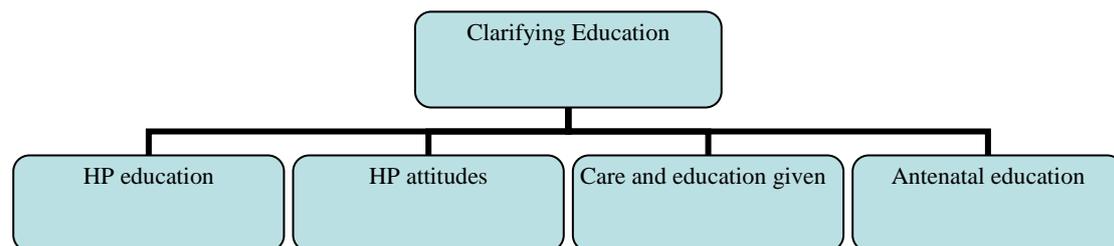
5.2.5 *Summary of category*

The first "clarifying pathways of care" identified a clear wish to do the right thing but a lack of clarity as to what that was and who would be responsible for it. Attempts had been made to rectify this and apparent understanding of the physical issues faced by the women indicating a desire to help the women and recognition that things could be better. This could lead to a lack of satisfaction with their role and a lack of clear information relayed to the women. There was also concern that the media could give confusing and incomplete messages.

5.3 Clarifying education

The second category highlighted educational issues, both for the patient and the health professional as illustrated by Figure 8.

Figure 8 Clarifying education concepts



5.3.1 Health professional education

The number of questions asked by the health visitor was surprising given that she was also a midwife. From her questions it appeared that she was not completely aware of the routine postnatal care delivered to the mother by the midwife. All participants were asked why they came to the group and this health visitor replied;

“I was interested because I was asked and also I deal a lot with mums and babies. I see a lot of mums with new babies. I do a family planning clinic and it wasn't actually anything I'd thought about until you brought the subject up and then I found I was interested.” [018, 17-20]

Both continence nurses were keen to educate other health professionals. One had even set up two education sessions at the local Primary Care Trust aimed at all community staff; however, these had to be cancelled due to lack of interest. Part of the problem for community staff was obtaining study leave. Usually only one member of a team could be spared at a time, which meant that the midwives could rarely attend sessions;

AW “You’ve set up two sessions for the PCT (Primary Care Trust) haven’t you on the pelvic floor and both times they have had to be cancelled because of lack of numbers?”

FP “Oh right, for which staff?”

CNS 1 “Yes, these have been like educating of the, aimed at health visitors and district nurses and anyone who is interested”

MW 1 “We’ve been told I mean its staff numbers really you know, they probably allow a maximum of 2-3 off” [017, 364-368, 373-374]

The family planning nurse thought that the education of health professionals was a key issue in encouraging women to accept treatment. Nursing education, as a whole, needed to raise the issue, teaching preventive care and information about the treatments available, according to the local continence nurse. She felt education was geared towards containment rather than treatment. The relationship with general practitioners appeared, at times, to be difficult; patients were often referred inappropriately and without proper investigation first.

5.3.2 *Health professional attitudes*

The attitudes of health professionals was coloured by educational knowledge. The family planning nurse thought the first approach should be to find out exactly what symptoms were

being experienced and the effect on daily life and then to refer accordingly. While agreeing with this approach, both continence nurses stated it was rarely used. The continence nurse in the first focus group had this to say on the subject;

CNS 1 “I think generally there’s a very small minority of people that would be horrible to somebody who had unintentionally wet themselves or very negative, but negative in the fact that they go for pads etc easily, maybe in that respect they’re negligent.”

AW “I suppose there is a certain amount of that isn’t there? In the short term it’s the quickest and easiest solution.”

CNS 1 “Yes and to make them comfortable, you want to make them comfortable.”

FP “Instinct”

CNS 1 “Yes actually you want to make them nice and comfortable. They don’t think outside the box and oh perhaps we can actually cure this person or perhaps get them better, a bit better...” [017, 295-304]

This sample from the transcript illustrates exceptionally well the commonly found attitude towards patients suffering from continence problems; using containment rather than cure and disempowering women by giving them something they find demeaning.

5.3.3 *Care and education given*

Both midwives claimed to talk about pelvic floor muscle exercises, continence and input and output of fluids in the early postnatal period. Interestingly, the first midwife had attended a lecture from a gynaecologist about urodynamics and since then had been very careful about bladder care, in both the antenatal and postnatal periods, although she admitted it was not always easy to find time to impart all the education necessary. The other midwife did not

discuss continence in the antenatal period as there was so much else to address. The continence nurses both expressed frustration when trying to educate women in the postnatal group as they were so focussed on the baby;

CNS 1 “We’re often invited in to come and talk to the postnatal groups of ladies in this Trust. And we have to come and just to sort of chat about problems and things like that and then look what we should do. We don’t actually have any, there’s no clinical contact and its, its quite a crucial stage and they’re too busy with their babies generally we are just putting seeds in their heads” [017, 37-43]

The health visitor asked if written information was given to the mothers after delivery regarding pelvic floor muscle exercises. According to the midwives, the women were all given an exercise sheet when they left the ward, but it was in with a general pack of information so there was a risk it would be missed. The continence nurses had other concerns. Women will sometimes buy other equipment themselves to help continence symptoms, but it is not always used correctly and may not be appropriate as discussed here;

CNS 2 “And there’s educators ladies can buy, but a lot of them go off and buy the cones, but I wouldn’t recommend cones unless they’ve actually got some tone otherwise they can’t hold it in. But there is a thing you can get which is called pelvic floor educator, its got a little stick on it and if you’re doing pelvic floor muscle exercises well the stick dips and then comes up to show them they are doing it right” [018, 470-474]

An initial assessment with a health professional would identify an effective means of treatment and allow recommendation of the relevant device. The continence nurses remarked that advertising and easy availability of equipment could stop patients seeking appropriate care.

5.3.4 *Antenatal education*

From the conversation so far in both groups it seemed that providing information in the antenatal period was thought to be very beneficial by all. However, in practice this did not always seem to happen;

AW “So what information do they get at the moment routinely about pelvic floor problems and when? Is there something antenatal that they are given, does anyone know?”

HV “I think they are given a handout”

MW 2 “Well yes and no, it depends on individuals really that run parent craft classes”

AW “Right”

PN “so its community midwives?”

MW 2 “I personally don’t give out an antenatal exercise sheet, I think we used to and they sort of like, you know ”what’s this” and a lot of them say “oh we haven’t got to lie on the floor have we?” So that’s a bit hit and miss, sometimes they are given one sometimes they’re not and then, and probably during antenatal visits here to the surgery we probably don’t discuss then because obviously you’ve got so much else to discuss” [018, 370-377]

It was interesting to note that none of the health professionals, or any of the women interviewed for that matter, mentioned the official publications that all pregnant women should be offered,

,including the Pregnancy Book (DH 2007b), as a source of information about pelvic floor muscle exercises. While both continence nurses were very knowledgeable and proactive on this subject, they were not involved in the antenatal care or the early postnatal care due to service agreements. Instruction at these times, if given at all, was given solely by the midwife, with referral to the physiotherapist in the postnatal period if the midwife thought it was necessary. The general practitioner said she did not think the pelvic floor muscles were mentioned at all now;

AW “How much do you think the health visitors talk about this sort of thing, cos they take over from the midwife don’t they?”

GP “I don’t think they mention it at all, because they are rather more concerned with the baby than they are with the mum”.

GP “The only other thing is, I mean it certainly was pushed quite a bit when I went to antenatal classes, they talked about doing postnatal and I don’t know how much that is pushed now, I mean that’s a midwife thing at antenatal classes, and not just the antenatal classes because once you are on your second or third baby you don’t have those, but actually pushing, even if you forget all the other exercise, the pelvic floor exercises, to carry on forever, particularly after babies, I think that would make a difference” [016, 145-158]

Interestingly, the health visitor was under the impression that they did have information in pregnancy and thought she had a leaflet in her office that was aimed at the antenatal period. A particular bladder problem that can occur during labour is retention of urine which can have serious and long lasting effects and both midwives felt women needed to be told to empty their bladders regularly in labour. However, both midwives at the groups said they did not give

information on urinary problems in labour in their classes and, in addition, the content of the antenatal classes varied greatly depending on the practitioner who undertook them. There was no set format.

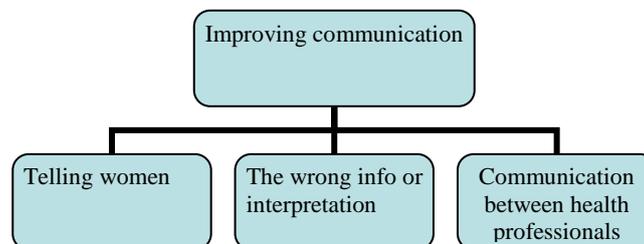
5.3.5 *Summary of category*

The second category “clarifying education” revealed, again, a lack of clear understanding of the educational requirements and provision for the women, which, again, the professionals seemed aware of and sympathetic to. In addition, had personal issues about preparedness for the education role relevant to postnatal women, in particular with regard to updating knowledge. This is frustrating and disempowering for the health professional and will have consequent effects on the women. While there is certain NHS information that should be provided to all women, it is also clear that this does not always happen.

5.4 Improving communication

There was a lot of discussion around how communication could be improved. It was encouraging that the health professionals were aware that improvements could and should be made. There were several areas that arose in discussion; the interpretation that women placed on information received, the information that was imparted by health professionals, and the communication between health professionals. Figure 9 illustrates this category.

Figure 9 **Improving communication**
concepts



5.4.1 *Telling women*

How women were informed about protecting themselves against urinary problems and the possible treatment options if problems did develop was deemed to be important by all present at both groups. Questions needed to be clear and specific. One of the continence nurses suggested a structured approach, suggesting that asking the right questions will give the right information. The general practitioner said she would ask “are you having trouble holding your water”, [016, 10] whilst the health visitor thought she should also ask about leaking on exercise or when coughing and sneezing etc [018, 158]. Trigger questions was the terminology used by the second continence nurse for the specific questions about symptoms. One of the midwives

admitted that the questions they asked were often more general and could be misconstrued. In future they would try to ask more specific questions. The health visitor said very simple language should be used for everyone so there were no misunderstandings and it might be necessary to probe a little if it seemed that there might be symptoms as discussed here;

HV “I think you should give out a handout to make out, to let them know how usual it is and how trivial it can be. This is what you’re looking at, this coughing on exercise and that sort of thing and you want to discuss it now because of the problems it can lead to later so they can...”

CNS 2 “Yes, so that they can have optimum results really...”

HV “Yes, so you can spell it all out in dead simple language early so they can read it and then when you approach them they know what you’re doing.” [018, 157-163]

During conversation about giving information to women the midwifery student related an incidence where the questioning did not elicit the correct information;

AW “How much in the way of continence problems do you see with young mums? I know most of them don’t say...”

HV “One, they don’t say anything”

AW “but those that have big problems, do you?”

HV “No”

MW “I can’t even remember...”

MW St “I’ve met one on the wards”

HV “On the ward straight soon after the baby was born?”

MW St “Yes, she was still on the ward till the baby was 2-3 days old maybe and I spoke and asked for some of the midwife, she say ask you know “how do you go to the toilet? when you finish, when you start” so the question, they say (midwives) “are you OK” and she say “yes” and when I said more like “do you know when you have finished” That all you ask, she didn’t ask them very much (the midwife) she stand up and still there (still passing urine) so I thought that not normal but.....”

HV “But if you’d just said are you alright, she would have said yes.”

MW St “Yes because she goes to the toilet. She say (midwife) are you weeing alright, she say oh yes, but it’s ...she didn’t know when she stopped.....” [018, 157-179]

From the transcript it is obvious that English is not this student’s first language and yet she managed to identify a problem that all the midwives had missed because the right questions were not asked.

Conversely another midwife seemed to be much more careful about bladder issues with her patients;

MW 1 “we check for, first of all, I mean we talk about pelvic floor exercises, we make sure the fluid intakes adequate, because that’s secondary to infection and stuff like that, make sure they they’re actually remembering to go rather than them just feeling full up to the brim and overflowing because they forget to go for how ever many hours so we talk about sensation and stuff like that and I personally make a point of making sure they are passing urine without problems” [017, 62-66]

The health visitor was worried that women might often say they were alright when they did not understand the question. In addition, both the health visitor and both midwives were of the opinion that women did not know what to expect after delivery and thought it should be made clear what was normal and what was abnormal. The health visitor said this should be included in the leaflet women were given in the postnatal period. The family planning nurse agreed as she explained;

FPN “I think they don’t know what the norm should be. I mean you know they, it’s like the midwives had them too but even when I had my babies you think that will all get better in a few months don’t you, you know everything’s healing, so what are we to expect of the norm I think would be a good route to go down. They think it might be that having children and then a little leak is quite normal” [017, 117-121]

The word incontinence was often misunderstood according to one of the midwives and talking to the patient to clarify symptoms was important;

MW 2 And you just need to clarify as well don’t you, like of they’ve said oh I’ve got an incontinence problem, what they perceive that as, well because they might think oh it’s really bad and actually it’s not, it’s quite manageable from our point of view, or they might say oh well it is alright and its not that bad and when you actually question them, you think actually that it’s not just alright and you need to be followed up more” [018, 192-196]

Even the health professionals themselves did not always fully understand what might be expected to happen. The family planning nurse from the first group had this experience;

FPN “You know I had to have an epidural with mine and my son was delivered by forceps and afterwards you know you’re a bit out of it, I can remember my husband saying why has she still got a head there and they had to catheterise me. Yes, and you know I wasn’t aware I had a full bladder, that just reminded me” [017, 127-130]

One of the continence nurses also described her experiences after the delivery of her first child; which was before she became a continence nurse as she explains here;

CNS 2 “I’ve got a four year old and an eight year old and I was quite angry afterwards that nobody had said to me that I might have problems with the bowels, I wasn’t doing this job then. And I thought it’s all interlinked, it’s an oversight, you should be told that you may or may not have problems” [018, 391-394]

Group work was seen as frustrating and difficult in the early postnatal period for several reasons. The continence nurses noted that as mothers could not concentrate and were not concerned with personal health, it was uncertain how much information was retained;

CNS 2 “And the other thing from having done the postnatal groups when the mums come along with the new babies they are so preoccupied they haven’t got time and I kept saying to the doctors, I want to do the session as their last session when they are more settled with the baby” [018, 128-132]

The practice nurse also noted this;

PN “You’re quite right, and then the six week check when I see them, they’re completely focussed on the baby and they can’t wait for you to finish because it doesn’t matter how they are” [018, 140-142]

One of the continence nurses also made the point that newly formed groups are not likely to talk about issues such as incontinence;

CNS 2 “And then you do it as a group thing, with all the mums as a group. If you’re their first session, no-one’s going to say anything because they don’t know anybody“ [018, 143-144]

5.4.2 *The wrong information or interpretation*

The wrong information may be given to the mother; the continence nurse related the following story;

CNS 2 “They come in to see the GP sometimes and complain of frequency and urgency, this woman was ignored and told she wasn’t drinking enough, she said she was but he didn’t listen, they don’t ask what they are drinking or how much. Like a lot of these little old ladies, they only drink out of teacups and they only have sort of one at meals times and don’t drink in between. A lot of them will be drinking cans of coke or other fizzy stuff, you need to get them to do a fluid chart, you need the basics, it’s not difficult, equally any nurse can do this, no need to be urinary trained” [018, 499-508]

The general practitioner thought that some doctors were just not interested and said things are normal rather than deal with the issue. In her experience these were often male doctors who would avoid dealing with “female bits”. The health visitor had heard comments such as;

HV “Oh he didn’t listen to me or wasn’t interested, I’m not going back again or that was absolute rubbish” [018, 489-494]

In addition, the general practitioner suggested that relatives could be a problem, telling mothers the symptoms were normal because they also had them. This was reinforced by others who wore pads constantly, rather than seeking help. All practitioners in the groups had experienced this at some time, and felt it led a lot of mothers to accept problems as part of normal life, as they discuss here;

FPN “Older people just tolerate it, don’t report it”

AW “mmm people do”

FPN “They come in well padded up for something and they’ve been wearing pads since the children and it’s just something they’ve accepted”.

NN “And it’s not only the elderly that get it as well, I mean I don’t think young mums realise that” [017, 270-275]

Because symptoms are not constant the continence nurses found women often did not perceive themselves to be incontinent; leaking on exercise, for example, was brushed off as nothing much. Incontinence “is what little old ladies have” was a view often expressed to continence nurses. Excuses such as no time for exercises were common as mentioned before, although, as the general practitioner put it;

“but you see, with the pelvic floor exercises, you can do it when you are sitting watching telly, when you’re lying in bed before you go to sleep, you can do it anywhere” [016, 168-169]

Other women stopped the exercises after six weeks, not realising they need to be continued for life;

HV “Yes hand over from you (MW) and then that’s it as far as it goes and sometimes we say are you doing you postnatal exercises and some people say, very rarely they’ll say yes. Most times they say, oh well I do when I think about it or else, oh no I haven’t started yet”

MW “or they do them for six weeks and then think they don’t need to do them any more

CNS 2 “Which is a big problem, they don’t realise they are for life” [018, 101-107]

Several other practitioners spoke of the old person image of incontinence; the general practitioner said “smelly old people” [016, 137], was the immediate image most people had and in addition, many older people tolerate the symptoms. One of the midwives had also been told by a young mother with incontinence that that happened only to older women. Advertisements for pads were criticised again here as giving the wrong message;

MW “I laughed, they might as well say there’s no help for you” [018, 253]

and

CNS2 “so it’s implying that it’s just the norm, the result of having the babies, it’s the norm” [018, 261]

Surprisingly there was little mention of cultural issues, but this may reflect the lower immigrant population in the area studied. The general practitioner did say that problems could be encountered when women came with other family members;

GP “I think some of the Asian women won’t come particularly Bangladeshi, there is a difference, and the Indian Asians won’t necessarily come either and then they might have to come with a boy, a kid. I mean more recently, some of the, sort of the older women have been coming in with their grown-up daughters, because of course their daughters are born here, they’re very good and that’s fine, and some of those girls would tell you if they had a problem but not all of them either because of the cultural thing” [016, 270-273]

However, no other participants noted any difficulties in this area. In addition the only foreign member of the focus groups actually achieved better communication than her English counterparts. The general practitioner spoke of a male colleague from Afghanistan who had never delivered a baby or examined a woman as this was not allowed in their culture. Women from cultures such as this would seek out a female doctor for all care.

5.4.3 *Communication between health professionals*

It was clear from the conversation that communication between midwife and health visitor could be better. As already discussed, the health visitor had not appeared aware of routine care and had asked if the women were given exercises after delivery and if they were examined at the

postnatal visit. She also did not remember a midwife ever saying to her that a woman had continence problems. She did ask if infection was also something to look for if women had symptoms. Hand over, as such, was via the baby's red book as shown here;

MW2 "If they've got any particular problems, then we tend to write in the red book certainly, so you'd have hand over that way"...

HV "Yes, hand over from you. And then that's as far as it goes and sometimes we say are you doing your postnatal exercises"...[018, 99-103]

The physiotherapy department did not send reports to anyone regarding women they had seen and no longer routinely visited the postnatal wards. The midwives usually discharged women at about ten days postnatal if all was well, although care could continue until 28 days if there were concerns. The midwife felt they had little involvement in the women's ongoing health;

MW2 "usually when we discharge them they are on day 10. If there are any problems they're obviously relayed to the health visitor and we actually phone through to the hospital and do like a referral to the physios. But because obviously by the time we've followed up with them its gone past 28 days which is when they get discharged from our care so we just sort of start the ball rolling if you like"...[018, 75-83]

When asked what involvement she would have with women with urinary problems, one midwife replied "not a lot really" [018, 75].

From the point of view of the continence nurses, patients could be better prepared for their appointment if they are referred, which included assessing how much fluid and the type;

CNS.2 “You need to have the basics before you can do anything, you need to do a chart and check a urine sample for infection and know what they are drinking and how much,” [018, 506-508]

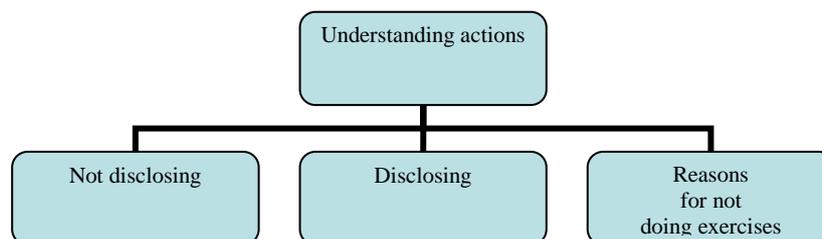
5.4.4 *Summary of category*

The third category “improving communications” identified a clear desire to ensure that two-way communication was enabled, by asking clear direct questions which could not be misinterpreted and would generate the knowledge required by the health professional in order to direct the women, if necessary, for suitable care. This was also one of the wishes of the women. It would seem, however, that this does not always happen; one of the reasons may be that the professionals themselves feel uncomfortable discussing these issues too, despite the fact that those at the focus group thought this was not so. There was a lack of understanding of the roles of the other group members, this was clarified, but may have led to inconsistent care for the women. Out of date or incorrect information was identified as an issue at and would further disempower any woman who had managed to seek help, possibly creating a barrier to seeking further help-. Time pressures on the health professionals may result in a rushed consultation, which does not allow the nervous woman time to vocalise her concerns.

5.5 Understanding actions

There was some discussion around the reasons why women do not do exercises or seek treatment. This is a serious issue and all practitioners felt they should help to improve this situation. Figure 10 illustrates this category.

Figure 10 Understanding actions concepts



5.5.1 *Not disclosing*

Most women did not disclose their symptoms to health professionals readily. The midwives reported that women were reluctant to say anything unless they had a considerable problem with leakage, and when asked how many patients a week she might come across who had any sort of urinary problem, she replied less than one. Several comments were made on this subject;

MW 2 They're quite reluctant [018, 89]

and

MW 1 "They might think oh well, I believe because I've just had a baby its' normal and not mention it" [017, 67-68]

CNS 2 "Nobody's going to own up because they don't know anyone in the group"

[018, 149]

However as previously discussed the right questions might elicit a different story;

HV "perhaps just make it clear what you're on about, you've got to really spell it out."

MW st "Ask the right questions"

HV "Yes and make it more usual, that they're not the only ones with the problem, that most people are like this and lets sort it out before it gets worse later"

MW 2 "They think its sort of more, that sort of problem, is more related to older, elderly people" [018, 114-118]

The nursery nurse stated that women never talked to her about anything other than the baby.

The general practitioner was concerned;

GP "It's one of my worries because people don't (come in for help), they put up with things for ages" [016, 5-6]

The health visitor said women did not say anything to her;

HV "They never ever say. I've never, ever that I ever think in 17 years had a mum saying to me that she had incontinence problems" [018, 86-87]

Interestingly this did not prompt any of the professionals to enquire if the health visitors would ask the women if they had symptoms. One of the continence nurses remarked that some people still buy sanitary towels to cope with the problem rather than seek help, while the other described continence issues as;

CNS1 “It’s still probably one of the very few last taboo topics to talk about; they talk about drugs, sex and sexually transmitted diseases and whatever but we don’t talk about pooing and weeing” [017, 326-328]

The problem of asking the right questions was raised again; it was agreed that patients may find it easier to answer a direct question than broach the subject themselves. There was also concern for those who had raised the issue but been sent away; would they ever return? The practice nurse felt people were less embarrassed now;

PN “I think people are less embarrassed, you’ve only got to pick up a magazine and there’ll be some section on health and often you know, incontinence is mentioned more but here’s still a taboo definitely” [018, 244-246]

5.5.2 *Disclosing*

The continence nurses revealed that women often seek help when the children go to school and they have time for themselves; most leave it at least 1-2 years. In addition, symptoms are not always obvious until they return to their normal pattern, as this continence nurse reveals;

CNS 2 “Its’ usually when they are about 5. The children, it’s usually about 4 or 5, they’re just going off to school and that’s when you find the mums just leaving the health visitors and they go into like a no-mans land” [018, 539-541]

For example, women may not be aware of stress incontinence until they start going to the gym again;

CNS 2 “or when they go back to the gym, all they’ve done (when baby is small) is got up in the morning, sort the baby out, sat on a chair, fed it, walked round to the shops, they haven’t got back into the swing of things and might not realise they have a problem.” [018, 558-559]

The continence nurse working in the local area (CN 1) had already stated the average age of her case load was going down, she felt due to women finding out more about urinary problems.

The family planning nurse spoke of a time when women might consult a little earlier;

FPN “And often like, you know I’m seeing them in the family planning clinics when they are just starting to have sex again and then finding they are leaking at that time and that will bring them down and sometimes with their partner to discuss it so that is another area we could dip into”

AW “that’s interesting that they would come and mention it then”

FPN “Well it’s the men are clearly pushing there”

AW “Yes”

MW 1 “Well that’s fair enough” [017, 159-164]

It is interesting that women may sometimes choose the relative anonymity of the family planning clinic rather than the general practitioner.

5.5.3 *Reasons for not doing pelvic floor muscle exercises*

The most frequently cited excuse was a lack of time, this was not seen by health professionals as valid as time was not needed; pelvic floor muscle exercises could be practised while doing almost anything else. Encouraging performance of the exercises should be done either very early after delivery or when the baby is about 3-4 months old for maximum efficacy, according to the continence nurses, between these times as, previously mentioned, women are too preoccupied with the baby to focus on their own health. The general practitioner agreed, commenting the women had other priorities at this time. The health visitor sometimes asked mothers if they were doing the exercises and received various answers; some say “haven’t started yet” or “when I think about it”, very rarely will they say “yes”. Perineal numbness or discomfort was a common reason for not doing pelvic floor muscle exercises in the early postnatal days;

MW 2 “And they can’t do their exercises straight away anyway because they are numb aren’t they” [018, 386]

5.5.4 *Summary of category*

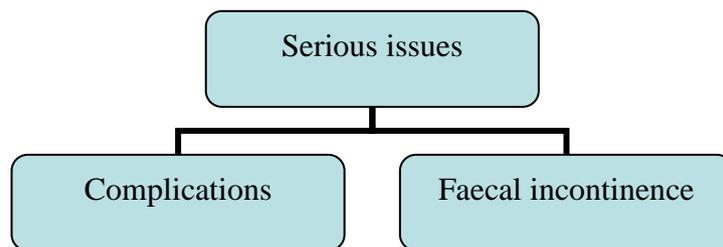
The fourth category “understanding actions” identified that women were known to be reluctant to disclose symptoms and in addition, often delayed seeking help until the children were older or they went back to work. Issues, such as being preoccupied with the baby, meant concentration was poor and time was limited which may have led to inadequate performance of pelvic floor muscle exercises. It was thought that regular reminders regarding the exercises

might be beneficial and indeed would almost certainly allow treatment to be commenced at an earlier stage with subsequent benefits to the women. Having help early in the postnatal period would be empowering and reduce barriers as the women may feel happier about asking for help in any further pregnancies. In practice, however, this did not seem to happen all the time.

5.6 Serious issues

Whilst some issues were less prominent, they were defined as a separate category as they were issues raised by the health professionals and later by the women as a cause for concern. In particular, some women may have a greater understanding of anatomy and therefore, were more aware that the pelvic floor may be weak after delivery, which may lead them to ask for more information. Figure 11 illustrates the issues.

Figure 11 **Serious issues concepts**



5.6.1 *Complications*

The impact on the pelvic floor of suturing and tears was raised and thought to have effects on faecal incontinence. Retention of urine can cause severe problems for life for some women and still happens, even now, according to the local continence nurse. The midwives told the group about problems caused by retention of urine. Women in labour need reminding to go to the

toilet; they often have no sensation of needing to pass urine, particularly if they have an epidural. A full bladder can also delay labour as shown below;

HV “It might have been the full bladder hindering her labour mightn’t it?”

MW 2 “Well yes probably was and that’s another reason why we try to get them to empty their bladders because obviously it keeps the head up” [018, 353-355]

These women often need catheterisation during labour and may struggle afterwards to know when they need to pass urine. One midwife related the experiences of a woman who is still unable to pass urine naturally 10 months after the birth; she has to self-catheterise regularly. Staffing problems can contribute to this;

MW 2 “Because its where you’re seeing we’re trying to advise them like in labour as well to make sure they empty their bladders regularly and if you know, you’ve got a midwife that’s say looking after 2 or 3 women which happens unfortunately, ideally we’d like to have one to one wouldn’t we but it doesn’t happen and she’s got like three women and one’s perhaps a bit more complicated than another, do you know what I mean, one lady might be there and she might have gone all night and then sort of eventually says, have you had the loo, no and because she’s in pain and she’s probably had some drugs, she’s not going to think about it. Oh I haven’t had a wee for a couple of hours I’d better go and have one and the midwife hasn’t been sort of there most of the time and she sort of pops in and checks her over and she’s gone and she sort of thinks oh I did need the loo, but I’ll wait until she comes back.” [018, 311-321]

Constipation after delivery is apparently common, particularly if the woman is breast-feeding, both midwives noted. During delivery, according to one of the continence nurses, the anal sphincter can be damaged resulting in temporary bowel urgency which can be very distressing as she explains here;

CNS 2 “It’s the urgency of the bowel because the anal sphincter might have got damaged during delivery, and when they’ve got to open their bowels they’ve got to go now. And they don’t, they’re not aware of that and they get caught short.

AW Oh right

CNS 2 It does settle, it will settle but it’s quite frightening the first two or three times, they actually, oh my god and bowels are more of a problem to some of them than the wee and you often find they won’t come to seek help until their children are of school age and they’ve got time to worry about themselves” [018, 528-537]

It is easy to see how things can go very wrong here; regaining bladder tone can take a long time but is usually possible, the continence nurse informed the group, although some do have long-term problems.

In the short term, infections can occur where a tear has been sutured, according to one of the midwives, but long-term effects are less certain. In addition, there appears to be uncertainty on the correct way to treat a tear, as this midwife explained;

MW 1 “A lot of midwives aren’t suturing their 2nd degree tears if the skin and muscle go together neatly and look as if they will heal without suturing, I don’t know because you are often treating infections caused by suturing. It’s such as vascular area it will

heal in a couple of days, just teach them about hygiene, but the guidelines have just gone back to suturing everything because they don't know the implications for the pelvic floor muscles if they are not being sutured."

AW (to CNS) "What do you think about the effect on the pelvic floor of suturing or not suturing?"

CNS 2 "Well I've seen it at St Marks (the bowel hospital), they see a lot more than we do where faecal incontinence is a problem after suturing" [017, 255-267]

5.6.2 *Faecal incontinence*

There was discussion about how likely women were to consult with faecal incontinence;

MW 1 "They're mostly much more likely to mention that (faecal incontinence)."

AW "Are they really?"

MW 1 "Oh yes, yes I don't think, well I wouldn't know I suppose"

CNS 1 "Yes, it does tend to get reported"

MW 1 "But I don't know because I don't know how many people just haven't mentioned it and we haven't asked them" [017, 240-245]

There was some discussion on the possible increase in faecal incontinence, showing differing views between continence nurse and midwife;

CN 1 "It's certainly on the increase because of instrumental deliveries and tears"

MW 1 "Which surprises me because the number, well I wouldn't like to say but they certainly don't do forceps as often as they used to, you'd think being metal they would be the number one sort of like cause but because the Ventouse really doesn't sort of

lead to, doesn't cause any tissue damage and then the Caesarean rate is a lot higher so that surprises me" [017, 247-251]

5.6.3 Summary of category

This brief category serves as a reminder that there may be some serious consequences to childbirth, which may also be adversely affected by changes in management.

5.7 Summary of chapter

Rapport within the group was good, the participants responded well to one another. When one practitioner was unsure of the role of another, explanations were happily and fully given. The continence nurses appeared to have the broadest knowledge, spoke often with authority and appeared to be more proactive regarding education and prevention. The midwives perceived more care delivery problems and did not seem to work as cohesively, although were clearly caring. The continence nurses both appeared surprised by this but did not comment. The researcher was surprised by the health visitor's comments with regard to knowledge of information imparted in the immediate postnatal period and also that they did not appear to ask women about continence problems themselves. However, it was pleasing that the group dynamics were such that she felt able to admit this and ask for clarity. Only the nursery nurse seemed a little intimidated, possibly as she was less qualified than most of the other practitioners and did not participate as much. Otherwise most participants joined in freely and the researcher did not feel the need to draw a particular participant into the conversation at any time. The second group contained several nurses who had met before although did not work together and the conversation flowed more freely. Overall it was felt there was a good mix and that the information obtained would be representative of the specialities included.

It seems so far that treatment and referral pathways are confusing and poorly understood by the health professionals needing to access them. Communication between health professionals is limited, often to the detriment of the patient's care. Knowledge of useful investigations which could help fellow professionals in assessments is poor. Primary health professionals may not fully understand the role they could play in facilitating care for women with urinary symptoms after delivery. In addition, simple treatments that could be implemented in primary care are not. Education of mothers generally seems "a bit hit and miss", there is misapprehension about several areas of treatment and care and no standardised antenatal education plan. Most importantly, it appeared that health professionals in the main expected the women to tell them about problems and assumed there were none if the women said nothing. The media may have adverse effects on help-seeking by offering easy solutions such as pads advertised in such a way that it appears incontinence is normal. Gadgets advertised may be expensive and not always appropriate. Given this scenario it is not surprising that the message received by women may at times be unclear.

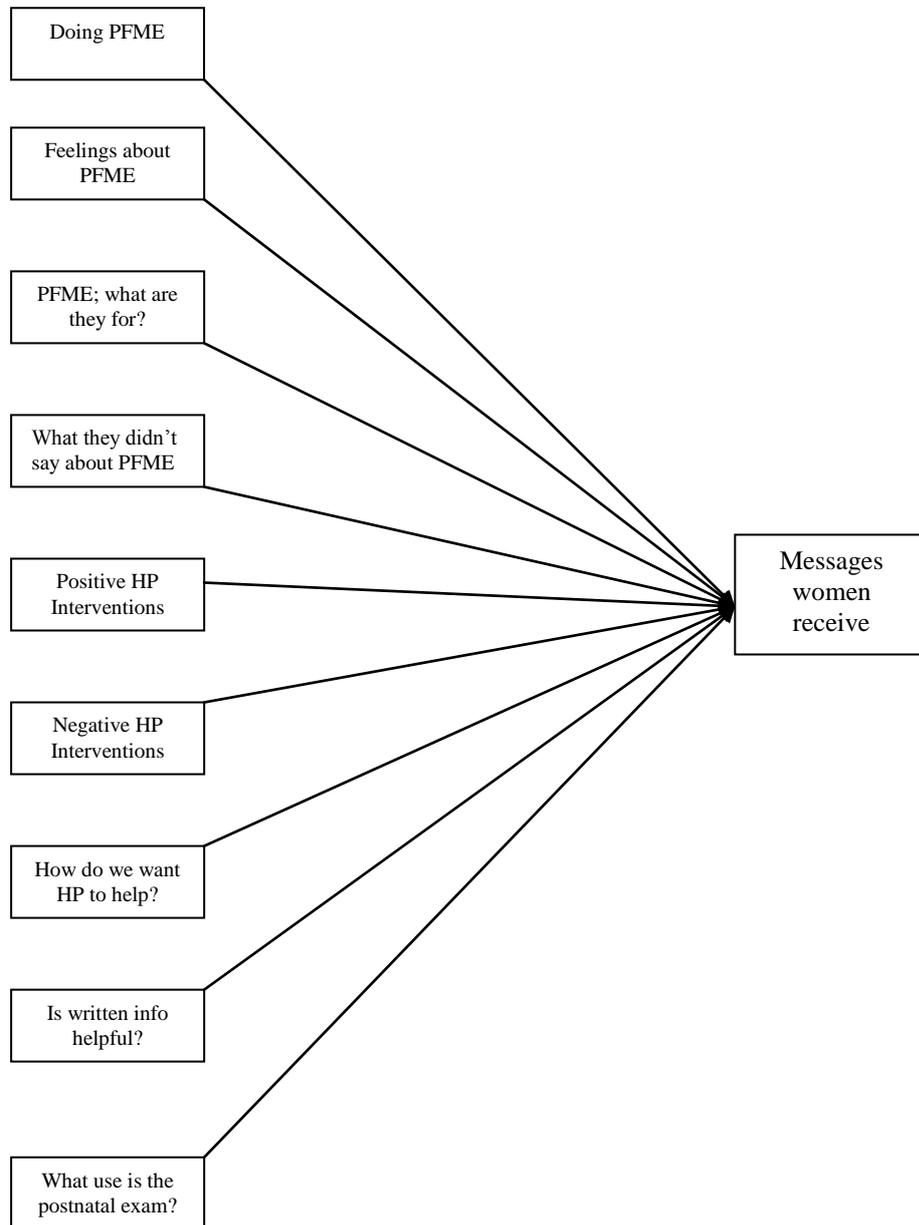
The next chapter starts the examination of the data identified from the women's interviews, firstly looking at the messages women receive.

Findings: Messages women receive

6.1 Introduction

The interviews were conducted using constant comparison methods with only a basic schedule initially allowing the emerging data to control further content. Theoretical sampling was used as far as possible to work towards data saturation. The transcripts were analysed to identify emerging concepts and categories. The concepts are shown diagrammatically in Figure 12 (below). Each section of the chapter details a concept, apart from the first section which details three concepts together, that of “doing pelvic floor muscle exercises”, “feelings about pelvic floor muscle exercises”, and “pelvic floor muscle exercises what are they for”. The remaining sections discuss each further concept in turn, they are; “what they didn’t say about pelvic floor muscle exercises”, “positive health professional interventions”, “negative health professional interventions”, “how do we want health professionals to help?”, “is written information helpful?”, and finally “what use is the postnatal examination?”. This chapter, therefore, looked at the experiences participants had of receiving messages regarding pelvic floor health through various forms of health education. It illustrated how variable the system can be and how messages may be interpreted.

Figure 12 Concepts leading to the category “Messages women receive”



Legend: PFME; pelvic floor muscle exercises, HP; health professional.

6.2 Views and experiences of pelvic floor muscle exercises

6.2.1 *Doing pelvic floor muscle exercises*

Only four women had done any regular exercise since delivery and this was not related to symptoms, one of these women describes here the difficulty of remembering to do the exercises;

“I don’t do it as often now to be honest. I probably try and do it at least once a day, about 20/30 times at least once a day and some days I do forget and I’m lying in bed thinking oh my God, I didn’t do it, but there have been days that have gone past that I haven’t done them” [008, 362-364]

(teacher, FUSS 10]

Another had an ingenious way of remembering;

Participant “At least twice a day, when I get up I make sure I do them”

AW “Right”

Participant And I remember to do it when I go to bed and I’m sitting down reading books now aren’t I, and I’m making sure that you know at some point this is my time.”

AW “Right”

Participant “Right Ok so before I start reading this chapter... it’s just little reminders like that because I’m terrible, ...little gentle reminders just for myself you know, so a book means do the pelvic floor exercises” [007 410-409]

(housewife, FUSS 9)

None of the women had any idea how often they should be done and one had no idea at all what to do as she had never received a leaflet;

“Just sort of said when you’ve got 5 minutes do them” [006, 161]

(nurse, FUSS 1)

Symptoms often prompted the women to start some exercises, but usually only long enough for the symptoms to settle again and then they stopped;

“Well, I know a friend of mine (from the NCT group) just after she had her baby, stood up because she thought oh I need to go to the toilet, stood up, got off the bed, and that was it, it was all over the floor and she had no, she’d had no sensation at all of passing any urine, it had just gone and, she said it was a couple of days of frantic pelvic floor muscle exercises before she dared stand up in a hurry” [001, 116-120]

(teacher, FUSS 10)

The same woman was also prompted to restart her own exercises by symptoms;

“A lot of pelvic floor exercises. I made a really deliberate good effort, like I had done before I had E to do the pelvic floor exercises which we had been told to do at the antenatal classes and I hadn’t done properly and I noticed an improvement within about a week of having done really, really sort of ten times a day doing exercises” [001A, 28-31]

(teacher, FUSS 4)

It appeared that the exercises had become very low priority after discharge from hospital. The women often performed them too infrequently. This is also documented by Mason et al (2000), few women in the study performed the exercises at a level considered to be effective, even those women with bothersome symptoms.

There were conflicts here, while most of the women realised the importance and knew there might be ongoing symptoms if they didn't exercise, often pain and the inability to tell if they were being effective meant, in reality, little was done as demonstrated below;

“it was very uncomfortable.....at the beginning you feel as if you're doing the pelvic floors and nothing is happening, nothing at all!” [008, 173-175]

(teacher, FUSS 10)

Guilt was experienced if they didn't exercise;

“I think don't do it now do it in a minute. But I do try and fit it in a couple of times a day but I don't always remember, it's terrible” [007, 144-145]

(Housewife, FUSS 9)

There were several similar comments, and one woman admitted she would be very annoyed with herself if she had permanent problems [006, 196]. Excuses were given to justify not doing exercises. The perceived time needed was often an excuse although, it is not necessary to stop to do the exercises. The woman whose quote appears above complained of being far too busy but later admitted she was pre-occupied rather than too busy. Having other children to

care for was seen as a reason for not being able to exercise. In addition, continuing perineal pain made the exercise difficult;

“I found them quite hard actually; I tell you what it was as well, and the reason I put off doing them because I had so many stitches inside it hurt so much to do them” [003, 169-172]

(engineering task manager, FUSS 8)

Another issue was the simple fact that often the women were unable to do the exercises initially as these examples show;

“It says tense the muscles in, hold for 10 seconds and release, now if your pelvic floor muscles aren’t very strong which mine obviously weren’t, you can’t even hold it, you pull them in and they’ve gone, you can’t and they don’t actually say in the leaflet, you know that that might happen but maybe you should persist and they’ll get stronger and you might be able to” [002, 192-196]

(care worker, FUSS 1)

and

“Well, it didn’t feel like I was doing anything”

AW No?

“So I don’t know if it was doing, so I mean I did try I did like because you sort of have to because I just couldn’t tell to begin with. I mean I know its all working now because I can feel it” [007, 390-391]

(housewife, FUSS 9)

Several complained that they should have been told this was possible and encouraged to persevere. Continuing symptoms were tolerated, although the women complained if they had been exercising as they felt they should have got better. One interviewee relates her experiences;

“I personally thought given time, keep going doing the pelvic floor exercises and gradually I would have got stronger, I personally but its almost six months and you know I’m now thinking well how long...” [008, 214-216]

(teacher, FUSS 10)

Another woman made a similar comment after 10 months, saying she would see the doctor if the symptoms didn’t go away [011, 66-67]. However, she clearly had not sought help in ten months and may have said this as she was aware of the interview being recorded, believing this was the correct response. The women did not appear to be aware that further options on top of pelvic floor muscle exercises were available, as illustrated below;

“I don’t know, I didn’t know there was any choice” [005, 87]

(administrator, FUSS 3)

and

“I haven’t got a clue, but I would obviously be concerned, if it wasn’t working for me, then I would bring it up and try to seek advice or help probably but I wouldn’t know what else there is” [013, 328-331]

(housewife, FUSS 9)

Misunderstandings often occurred with mothers of several children; one woman had her first child 21 years ago and had not attended antenatal classes since then. She was still doing her pelvic floor muscle exercises by attempting to stop micturition, which is no longer advised;

“I was making sure I was doing it every day, because then you were supposed to do it when you had a wee, now I’ve been told you don’t do it when you wee” [007, 138-139]
(housewife, FUSS 9)

Interestingly, one of the youngest interviewees (25 years) was also doing the same thing following advice from a relative;

“I normally do my exercises when I’m, there”

AW “When you think about it?”

“No when I’m sitting, if you see what I mean

AW “Oh right, is that the only time you do them?”

“Yes” [009, 88-92]

(housewife, FUSS 16).

It appeared to be common for women to stop attending antenatal classes after the first or second child; all the multigravid women interviewed confirmed this [013, 267].

6.2.2 *What they didn’t say about pelvic floor muscle exercises*

Several women said that exercises were “mentioned” by midwives but not emphasised. Three women did not remember ever being asked if they were doing pelvic floor muscle exercises. Life was busy with a new born baby and the feeding and settling of the baby was time-

consuming and took priority every time. Whole days could go by when all the mother did was feed and change the baby, it is not surprising that personal care was limited. However, the women did comment on this lack of emphasis as this interviewee explains;

“I would have yeah I do recall getting a leaflet but I don't, it was more “ there's some paperwork have a look at it” not in like “do you understand the importance of” You know if somebody had just said to me; you know if you don't do these now you're going to suffer when you're a lot older, I think just being very naïve and as with most things you don't think it's gonna happen.” [011, 97-101]

(Finance officer, FUSS 18)

This woman had the highest FUSS (Female urinary symptom score), her child was now 11 months old and she was quite bitter. She worried she would have the symptoms for life and had no idea what to do about it other than wear pads. The lack of knowledge was obvious with most of the women; time was spent answering questions about available treatments from several women after the interviews and providing leaflets.

6.2.3 *Pelvic floor muscle exercises; what are they for?*

The overriding message was that the women did not perceive the exercises as important to them because they were unclear about the purpose or success rates. It was something that could be dealt with later, the baby took priority.

Not all the women fully understood the reasons for doing pelvic floor muscle exercises or where the pelvic floor muscles were. This could have a profound effect on performance of the exercises. Some women had the impression that delivery would be improved by the exercises.

One woman, who had attended NCT (National Childbirth Trust) classes, reported a highly prescriptive approach to doing pelvic floor muscle exercises, advocating stickers as an aide memoir. However from the transcripts it seemed that the message could be unclear;

Participant “the focus of the pelvic floor exercises was actually to assist you with the delivery process, to get the pelvic muscle going so it turned the baby’s head automatically and helped deliver the baby.”

AW “Oh I see”

Participant “And that was what they were focussing on. It was kind of a sideswipe oh and the nice side effect is it will help you not be too incontinent afterwards” [001, 104-110]
(teacher, FUSS 10)

Although this woman realised the importance, she felt others might not have. Two other women had attended NCT classes and could remember the stickers, but were vague on what the exercises actually did. Some had understood;

“Probably to stop leaking afterwards, to help because they weaken (the muscles)”

AW “Right, so it was clear why you were doing them?”

“Oh yes, yes to help because they weaken”

[004, 92-94]

(office worker, FUSS 13)

and

“yeah, because your muscles.. the muscles weaken while you’re pregnant and obviously you need to do them to strengthen them up” [010, 46-47]

(housewife, FUSS 10)

However, another woman spoke about performing exercises she had been given for a bad back instead as she had lost her leaflet, obviously misunderstanding the purpose of the exercises altogether. In addition, the first question was usually around the purpose of the exercises and none of the women answered immediately or confidently. Although all had at least heard of them and most were aware they should be doing them, it appeared that they afforded them very little importance at the time. One possible influence on this attitude may be a lack of emphasis in the antenatal period; from the observation findings it seemed that the pelvic floor was not always high priority during the clinic. One antenatal clinic of ten women at all stages in pregnancy was attended. During the clinic a lot of form filling was necessary and the consultations appeared very task oriented, including blood pressure, arrangements for scans, and bloods tests. Any arrangements that were due were made at the time. The mothers were completely focussed on the pregnancy and the stage they were currently at, rather than looking ahead. The only personal question asked was as they arrived; "how are you doing?" Few of the women asked questions. The pelvic floor was not discussed by the midwife or the women. It seemed that there was not enough time for a relaxed consultation due to the number of necessary tasks. It is important to remember, however, that just one clinic was observed.

6.3 Health professional interventions: positive

The next two concepts describe the interventions between women and health professional. Positive comments are few and negative comments many.

At least five of the women remembered being asked about performance of pelvic floor muscle exercises in the postnatal period, mostly by the midwife but once by a health visitor. However,

the comments were largely on a single occasion, only two women said there had been any repetition. This did not always have any effect, as this woman explains;

“They do keep going on about it but you don’t, yes, it’s hard to think well, you know and trying to remember to do them as well, it’s hard when you’ve got everything else going on” [004, 96-97]

(office worker, FUSS 13)

and

“yes all the way through pregnancy, and afterwards as well and even leaving the hospital but to be honest you’re quite sore afterwards that pelvic floor exercises are the last thing you want to be doing” [008, 159-163]

(teacher, FUSS 9)

Phrases like “mentioned it” and “touched on it” gave the impression of a casual passing comment rather than a definitive statement. A few midwives did ask if the women were practising the exercises and also enquired about frequency of urination. There were several positive comments about NCT classes, however, these classes are not free and therefore not available to all. Only one woman said it was discussed in the antenatal period in the NHS classes [005, 60]. It is possible the women may have forgotten, a lot of information is imparted at these clinics. Increased emphasis might increase the likelihood of remembering.

6.4 Health professional intervention: negative

Use of language was a big issue for over half the women. Several were asked how their “waterworks” were, with no more specific questions. They didn’t know what was meant by this and most said “OK”. This is explored in chapter 7. More than one woman deliberately said

there were no problems to avoid an examination which they assumed would follow, not wanting to be “poked about” [014, 348] after the recent delivery. One woman was very honest in her approach;

“And she said to me any problems with your waterworks and any leakage and I said to her if I say yes will you examine me and she said no, I said yes. You know its just, its like the whole having the baby and you get fiddled about with so much you don’t want to be fiddled about with any more” [007, 154-157]

(housewife, FUSS 9)

A number of women were merely asked if “things were OK” and again, answered yes unless there was a worrying issue. Vague questions such as this may not elicit any useful information as the meaning is unclear. When questioned in the interview what the meaning of “waterworks problems” might be, most women said infections such as cystitis or trouble passing urine. One woman, for example, did not disclose symptoms of stress incontinence as they were not specifically asked about;

AW Did anyone ask you at any of your postnatal visits about your bladder?

“They asked me if I was going and if there was any pain or anything”

AW Right

“and anything else not right, they didn’t really talk about it much”

AW Right, any mention about whether you were leaking?

“no”

AW so after you’d had the baby do you remember leaking at all

“did have problems with leaking yeh if I coughed or sneezed but only if my bladder was full” [010, 64-74]

(housewife, FUSS 10)

Indeed, most of the mothers criticised the general practitioner for often asking only about contraception at postnatal visits and one woman said she would not go to her doctor with a problem as “they are a bit more removed than a nurse” [009, 162]. The length of time spent in hospital raised issues for some. One woman was only in the hospital for three hours, left without any information and did not see her midwife until the next day. Consequently, she did not receive the customary leaflet pack which included the pelvic floor exercise information [011, 91-93]. This woman felt a little isolated, although she had a telephone number to contact a midwife, patients often don’t like to “trouble” health professionals. This impinged on the later actions of the same woman;

“Yes, and its troubling people as well, I mean sometimes I think do I really want to, you know, do I go down to the doctors just because I’m this, will they just say to me “are you doing your pelvic floors” and send me away” [011, 208-210]

(finance officer, FUSS 18)

This gives a clear indication that the woman also fears rejection and is unsure if her enquiry is legitimate. Too often the woman is proved correct in her fears; another interviewee who had stress incontinence from the beginning of pregnancy had sought help when it continued after delivery. The response from her general practitioner was poor, indicating that as she had had a baby, it was to be expected and she should get on with the exercises, she was not asked to return [004, 125-126]. Needless to say this woman is now anxious about seeking further help.

Urinary retention can also be a problem and none of the women interviewed were aware of this risk, particularly if they have an epidural anaesthetic;

“And they go do you need the loo? And I’m like how I don’t know I’ve got an epidural, how am I supposed to know that” [009, 193-194]

(housewife, FUSS 16)

another woman who had not passed urine for a long time;

“because she asked me, yes she said sort of you know when was the last time I’d been ‘cos she needed a wee sample” [007, 246-247]

(office worker, FUSS 9)

These examples show that sometimes the right questions were not asked in the right way, this may lead to women not disclosing concerns either for fear of examination (tape 6) or rejection (tape 10) or simply because the enquiry is unclear (tape 4).

6.5 How do women want the health professional to help?

Communication is an issue here again, both for the women and the health professionals. One woman spent a lot of time talking about various relations with symptoms, it proved difficult to encourage her to talk about herself which may have been her way of avoiding the subject. To some, symptoms were a clear medical problem that required a doctor’s intervention, while others thought midwives or health visitors should be able to offer help. One woman felt the postnatal examination was too soon to ask the questions as symptoms often improved later

than this. Expectations of the health professionals were often not met regarding seeking out symptoms by asking the right questions or explaining about treatments;

“I mean maybe if there was more mention about how you can cure it, because I guess you think about it and you think it can’t be cured so what’s the point”

AW Right, so do you think it can’t be cured?

“The only thing I can think of to cure it is to do your exercises, and I’m wondering whether you can get that back, can you get the strength back once you’ve lost it, I don’t know [012, 266-270]

(home worker, FUSS 7)

It seems the women did not feel able to offer the information and would feel more comfortable if direct questions were asked. Several made the point that they would have answered direct questions but would not have volunteered any information; this is demonstrated further in this chapter. Part of this was being unaware what was normal; they didn’t want to make a fuss or be told to get on with their exercises;

“You don’t always remember to do them and then you think, well maybe it’s my own fault, that I’ve sort of got it you know but it is hard” [004, 60-62]

(office worker, FUSS 13)

and;

“You don’t know how bad your problem is compared to say someone else” [004, 192-193]

(office worker, FUSS 13)

“I think the doctor would think I was just making a fuss and he would tell me to go away and do some pelvic floor muscle exercises” [001A, 175-176]

(teacher, FUSS 4)

Direct questions should give everyone the information required. The women wanted more emphasis, both from midwives in hospital after delivery and at the postnatal check. Physiotherapists were only involved if the rectus abdominus muscle remained parted, but those women who had to go to the physiotherapy classes reported receiving instruction in pelvic floor exercise as well, as part of the session, which they found helpful.

6.6 Written information; useful or not?

Most of the women had some form of written information either given to them or accessed elsewhere. Posters and advertising were also suggested by some. There were, in total, 11 negative comments from women about the leaflet given after delivery, some examples are given below;

“I did have a leaflet and it came with my breastfeeding stuff

AW Right

“but I don’t know I think I’ve thrown that away now ‘cos he’s on the bottles” [009, 112-114]

(housewife, FUSS 16).

“I do recall getting a leaflet but it was more; there’s some paperwork have a look at it not do you understand the importance of it” [011, 97-98]

(finance officer, FUSS 18)

“It didn’t give a lot, it was just one A4 sheet with a couple of sort of notes, this is what you should do and this is how many times a day you should do it

AW and did they explain they why you had to do it?

No, it wasn’t very informative, well I didn’t think, it didn’t really explain to you”

[002, 187-190]

(care worker, FUSS 1)

“Because they handed me a leaflet and it was just foreign to me, I didn’t know what was going on, I was so tired as well” [010, 375-376]

(housewife, FUSS 10)

The consensus was that the leaflets were unhelpful, just given to the women, not explained and usually mixed in with other information. Not one woman could provide me with a copy. Three women could not remember being given one. All the women had delivered in the same hospital and should, therefore, have received the same leaflet and yet some remembered diagrams while others did not.

Pregnancy books were generally thought to be good and there is a section on pelvic floor muscle exercises in the Department of Health Pregnancy book (DH 2007b) that all women pregnant for the first time are given at their booking appointment with the midwife. Copies of the leaflets used by the local hospital for both normal and caesarean deliveries were obtained and are included as Appendix 13 and Appendix 14. The need for continuing the exercises for life and seeking help with persistent symptoms is emphasised. However, the leaflets are

photocopied, and not all the copies received were of good quality. Several were photocopied at an angle and part of the information was missing and black ink marks from continued copying obscured the information in places. This might not encourage the recipient to read it.

6.7 What help is the postnatal examination?

The postnatal examination is conducted usually in general practice. Some mothers did not realise they had an appointment for themselves; they thought it was just for the baby. Two women were happy and felt they had had the opportunity to ask questions;

“Yeh I was quite happy, I was given the opportunity to ask questions if I needed to, and that’s what I thought it was all about, checking you were OK after having the baby really” [010, 252-253]

(housewife, FUSS 10)

However another woman had a very different experience;

“Not a lot, contraception and that was it in fact (an aside from the husband who was present in house; ‘a bit late by then’)” [006, 140]

(nurse, FUSS 1)

This last statement was typical of the experience of most of the women. In particular, only one mother reported being asked about pelvic floor muscle exercises and then only cursorily. Five women were surprised, although relieved, they were not examined; this also has implications for help-seeking and is further explored in chapter 8. The mothers generally felt the postnatal check was a waste of time and it was also a missed opportunity for the health professional; the

mother may not consult again for herself for some time and if she does postnatal symptoms may not be discussed once they have been present for some time. Conversely one woman reported that a friend in Scotland had had a full physical examination and a smear and was unsure which approach was the correct one;

“Ok I was expecting to basically have an internal, all checked over and told everything’s fine down there and it wasn’t like that. I got my blood pressure taken and I didn’t even get my tummy felt or nothing, so I was a bit you know is this what it’s all about. I was talking to my friend in Scotland who is exactly the same and she got like an internal and a sort of smear test done in her six week check and her tummy felt and things. You know its one extreme to the other and you think well what’s right, what’s norm?” [008, 190-196]

(teacher, FUSS 10)

6.8 Summary of category

The title of this category “messages women receive” has been selected because the findings identified that, in both the antenatal and the postnatal period, women may or may not be provided with information about pelvic floor muscle exercises, which are external messages. However, the way it is presented and the interpretation the women place upon this information may indicate that the internal message received may be different to that intended or perceived by the health professional providing it. There are communication issues here. Symbolic language such as “waterworks” is open to wide misinterpretation. Lack of clear understanding and confusion may affect performance and confidence in the exercises, which could be disempowering. This may lead women to seek information elsewhere for clarity and these sources may not always be helpful as discussed in the next chapter.

Findings; Seeking and understanding information

7.1 Introduction

This chapter explores the way the women in this study accessed information, how they interpreted and how they used it. Figure 13 (below) details the concepts of this category. How women behave in the postnatal period, with regard to practice of pelvic floor muscle exercises and help-seeking, may be influenced by the information received and the emphasis placed upon its importance. This chapter, therefore, deals with the actions women took when they either felt they had insufficient information or wanted to know more. The media; including magazines, television and the internet, are all used by women to access information and the choices made by the women in this study are explored. Much advice was offered by well-meaning relatives but was not always accurate or appropriate. This was also true of the interpretation of messages from health professionals.

Figure 13 Concepts leading to the category “Seeking and understanding information”



7.2 Information gathering

The women in this study used several different mechanisms to access further information. The most common source was through television advertisements (e.g. Tena); several women could remember this as demonstrated below;

“I get paranoid just seeing the advert you know for Puisse...they’re saying women over 40 but it does happen, it can happen though can’t it?” [009, 241-242]
(housewife, FUSS 16)

and

“Well I think programmes like ‘Loose Women’ is quite a good way, you know, problems like that targeting women and talking it through openly I suppose” [012, 239-240]
(teacher, FUSS 7)

However, no-one could remember a programme specifically about urinary symptoms. Several mentioned the booklets they were provided with at the NCT (National Childbirth Trust) classes; these were generally thought to be useful, and a couple also thought the booklets provided by the antenatal clinic were helpful. Two of the women discussed how they had purchased books on pregnancy or general family health books to find out general health information;

“I’ve got them books, medical books, Dr Ann, what ever

AW Miriam Stoppard?

That's the one, I've got all them and they tell you some of the things you know, it gives you a general idea of what it could be" [009, 352-354]

(housewife, FUSS 16)

The second woman found the book less helpful in the postnatal period;

"and I noticed even my Miriam Stoppard book that I bought for the pregnancy, it doesn't really do afterwards at all apart from scar care and that is it. It stops when the baby is two weeks old" [001A, 113-115]

(teacher, FUSS 4)

One woman said she would ring NHS Direct if she wanted information on the subject [015, 85]. Others gathered information opportunistically; for example, several asked me questions during the interview, clearly to find out if I thought they did have a problem and also what they could do. Although the continence nurse had suggested more women were accessing the internet for information about urinary symptoms, only one woman had searched using the internet, and that was to find out how to fold a nappy.

7.3 Impact of advice or comment from others

Comments from friends and relatives could have positive and negative effects. Information might have been either requested or volunteered;

"I've heard of people saying you know after the baby oh god you'll never be able to hold it in you know you need to go to the toilet again, I've heard people saying that but you just don't think about it at all to be honest." [008, 79-82]

(teacher, FUSS 10)

Several women had been given the impression by relatives or friends that urinary symptoms would automatically follow childbirth;

“My Nan and my Mum have both said that after having babies it happens and it’s got worse with age” [001, 236-238]

(teacher, FUSS 10)

The mother of one woman said;

“she always says; it’ll never be the same after you have a baby, she’s always said that and I think she’s just you know go on with it but I don’t think it’s a huge problem” [008, 245-247]

(teacher, FUSS 10)

The colleagues of another woman had this reaction;

“All the girls at work who’ve had kids you know, their kids are teenagers, and were, you know, laughing hysterically and they are all going ‘yeh, you wait until you’ve had that baby, you won’t be standing there laughing quite so easily, you’ll be running to the toilet” [012, 94-97]

(teacher, FUSS 7)

The mothers of two of the women interviewed asked them if they were doing exercises and one was surprised that her daughter did not have classes for pelvic floor muscle exercises. Many of the comments were negative, however. Some came from friends, relating how they were unable to hold urine flow or having to run to the toilet each time they laughed, coughed or sneezed. This gave the impression that incontinence was inevitable and permanent. Older relations with symptoms were also unnerving. The worry for this daughter was the way her mother was treated, she thought with a lack of respect and dignity;

“My Mums been sat there and people are like oh there’s a wet patch, look” [013, 355]
(housewife, FUSS 9)

The investigations sometimes undertaken for those who have sought help were a source of worry as well. One woman, whose mother had undergone surgery and a variety of tests, had this comment;

“Some of the things my Mum has had done and she’s explained what, I couldn’t do that, I couldn’t face that. She does put me off a little bit” [007, 458-459]
(housewife, FUSS 9)

Her mother also chatted happily about her problems to anyone who would listen, which her daughter found disturbing.

7.4 Images

The perceptions and experiences of urinary symptoms in relations or peers had an effect on the women if they selected this avenue to gain information. Some comments created

frightening images of incontinence for these women; although it was also clear this did not necessarily prompt action. The impression created appeared to be that symptoms could occur in anyone and, although the majority were older, it could happen at any age. The idea of wearing large pads all the time was concerning. However, three of the women were already wearing pads continually, while a further three felt that certain circumstances, such as having a cold or wanting to play games, would necessitate a pad;

“Even just sort of walking around. I permanently wear like a panty liner, I’m always sort of leaking” [004, 51-53]

(office worker, FUSS 13)

“I can’t feel myself leaking. I do wear a little pad so I do know it’s happened but I don’t actually feel it” [014, 15-16]

(shop assistant, FUSS 10)

While thin pads may appear to be an unrealistic solution, this woman seemed to feel it was less serious if a thinner pad would suffice;

“If it wasn’t a massive leak or problem you’d just have to wear a very thin pad and I shouldn’t imagine it would be too bad but if it was a lot, if you was losing a lot or leaking a lot, I should imagine it would inhibit what you could wear, where you could go, how long you could be out for and you’d be worried and self-conscious about it I would imagine” [002, 108-111]

(care worker, FUSS 1)

Large pads definitely signified a serious problem, “proper” incontinence as one put it. When asked to clarify this she replied “uncontrolled” [007, 276]. A concern for one woman was that faecal incontinence would follow as she imagined the two systems were connected [007, 276-278]. As health professionals it is easy to forget that people do not necessarily fully understand how their body works. The most common image by far was the smelly person;

“The little old lady thing-you know, little old ladies who smell of wee and have incontinence pads” [001A, 86-88]

(teacher, FUSS 4)

and

“I suppose it springs to mind they’re smelly, but that sounds awful now” [007, 269]

(housewife, FUSS 9)

There were several other similar comments, always smelly and elderly people. Being like this themselves when older was a disturbing thought. Friends that made comments about “nothing being the same again” worried several women, as they imagined themselves doomed to embarrassing symptoms forever. These images impacted on treatment seeking, more than one interviewee commented that they thought the continence clinic would be full of smelly old people.

7.5 Interpreting “waterworks”

Interpreting information given or requested often caused confusion. Health professionals often used vague terminology; questions about “waterworks” problems at the postnatal examination may be mistaken by both sides. Most of the women interviewed had been asked this or some

other vague phrase at their postnatal visit. Interpretations were very different for individual women. Three thought it meant symptoms such as frequency, burning and pain passing urine;

“Cystitis, I’ve had that once” [012, 83]

(teacher, FUSS 7)

and

“Frequency, postnatal urine infections” [006, 46]

(nurse, FUSS 1)

One thought it meant were you passing urine and another thought it meant pain passing urine.

Only four of the women described symptoms related to leakage, for example;

“weak bladder, wetting yourself when you’re coughing and sneezing” [007, 59]

(housewife, FUSS 9)

and

“If you cough and sneeze you can lose a bit, and you’ve got no control on that” [002, 55-56]

(care worker, FUSS 1)

Worryingly some of the women said they did not understand what was meant at all. None of the women seemed to have asked for further clarification and some admitted they just said there were no problems to avoid further questioning. As documented in a previous chapter, women were reluctant to volunteer information they were not asked for and indeed one said specific questions were necessary because she felt women were unlikely to volunteer this information unbidden;

“if you had that problem and were asked “have you got that problem”, then I think you would say yes then, but I don’t think they’d go to a doctor and say “I’ve got this problem, women just want to get on with it don’t they” [010, 360-362]

(housewife, FUSS 10)

7.6 Understanding the problem

Most of the women did seem to understand the symptoms. Only one woman stated she did not know the cause and thought it just happened. Some of them thought symptoms were quite common or very common and one thought it was more likely if you had had more than one child;

“I think it is if you have about three, the more you have the more you are prone to it, I think you are expanding something” [015, 70-71]

(care home worker, FUSS 5)

Other women said the muscles were weak;

“I should imagine pretty common, very common,

AW Right and do you have any idea what might cause it?

“it’s the lack of pelvic floor muscles isn’t it?” [002, 73-75]

(care worker, FUSS 1)

Two gave reasons related to pressure; labour putting pressure on the muscles or pressure increasing when coughing. As mentioned previously, one woman, who had seen an

advertisement for Puisse pads commented that the idea it only happened to women over 40 was wrong; it could happen anytime [009, 243-244]. This comment repeated by other women in the study, although the image was of older people they were aware that urinary incontinence could occur in a much younger person. In the past, first-time mothers often had the least knowledge;

“Well with my first child I was a bit miffed about all these muscles, and I was obviously quite young, I didn’t really know about these muscles didn’t know they were there, it took some getting used to....I think I asked somebody for advice, it was a member of my family, or friend or someone like that, I can’t remember who it was, I must have done because I didn’t know anything at all about pregnancy, or after the birth, I didn’t even know you bled after you’d had a baby” [010, 227-232]

(housewife, FUSS 10)

This woman had her first baby at 15 years of age and had little antenatal education. Now 38 years of age she has five children, but only attended antenatal classes for the second pregnancy, after that she felt she didn’t need to; “been there done that “ as she put it. However, this may mean she is unaware of modern opinion on subjects such as pelvic floor muscle exercises and may also be less likely to read other information that is simply handed to her.

7.7 Summary of category

The title of this category “seeking and understanding information” has been selected because the findings indicated that women did, at times, feel the need to seek clarity from other sources. This sometimes meant receiving disturbing messages from relatives and friends; that continuing symptoms were to be expected. These messages were not necessarily correct but

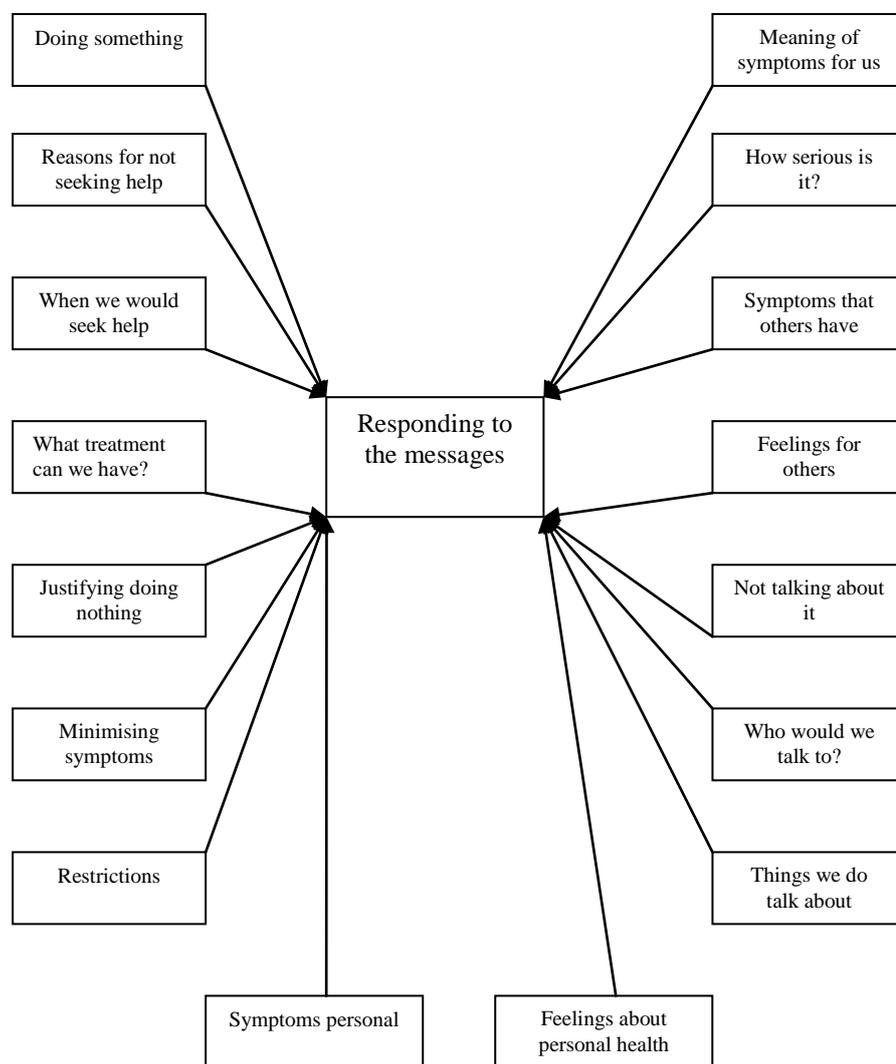
could have a powerful effect on the women, causing further uncertainty and again possibly reducing confidence in the effectiveness of the exercises. In addition, possibly incorrect information from the internet could severely affect women's understanding of their condition. This situation may create a barrier to help-seeking and could be disempowering. Better communication from sources that could give accurate and helpful information is potentially empowering. Having obtained information, the next stage is to make a decision regarding how they will respond to the information and this is investigated in the next chapter.

Findings: Responding to the messages

8.1 Introduction

The concepts in this chapter all relate to the perceived barriers that might affect help-seeking behaviours and the coping strategies that may be employed to justify not seeking help. As in previous chapters these were formulated using constant comparison. These concepts are represented diagrammatically in Figure 14 (below). Several of the concepts were not mutually exclusive; there is, therefore, inevitably some overlap. Some of the barriers are created by the women themselves, some by health professionals and some by friends and family. This chapter needs to be read taking into account the fact that, although all but two of the women had some urinary symptoms, only one woman had sought help. In addition, women presenting symptoms were not exclusive to the study; their urinary status was unknown until the interview. The largest number of open codes was identified in this section, also leading to the largest number of concepts.

Figure 14 Concepts leading to the category; “Responding to the messages”



8.2 Doing something

When asked, women said that if they did decide to seek help that they were likely to choose the general practitioner. Five women said they would do this;

“probably go to my GP first” [005, 81]

(administrator, FUSS 3)

“I would go and see the GP eventually” [002, 118]

(Care worker, FUSS 1)

The next choice for two would be the practice nurse. Three women selected the practice nurse as first choice and one woman felt she would rather ask a midwife or at least a female health professional if it was possible. Although this next woman had said she would go to her general practitioner, it was later clear that this was not what she thought was best;

“I think it would be better to see a nurse than a doctor and have it explained like that, actually just being able to go down to the surgery, see a nurse and if there are options, then explained and what to do and all that sort of thing. GPs are less approachable sometimes, a lot of them can be, it depends if you know them all and you get to know the one or two that you might see” [002, 135-139]

(care worker, FUSS 1)

Another had some stress incontinence symptoms and a little faecal incontinence but did not want to attend a clinic for this;

“So I think, it’s strange but I’d probably go for that side of things (stress incontinence), I think, but I don’t know I’d probably be a bit you know about the back passage side of things” [003, 132-133]

(engineering task manager, FUSS 8)

One woman described herself as a very private person and felt she would not be able to talk about it to anyone, in spite of the fact that she had some incontinence (not stress) and wore a pad all the time. In fact her husband had accompanied her to all the antenatal clinics as she did not want to go on her own. Her answers were often one word;

Participant “I’m quite a private person and I don’t find it very easy to sit in with a group of people and discuss myself in any way. I couldn’t do it in front of a group of people. It’s easier on a one-to-one.”

AW “Yes, So if something on a one-to-one basis was available do you think you would do that?”

Participant “Possibly”

AW “What would make you decide to go for treatment?”

Participant “I think if it was worse then that would probably prompt me to go Because at the moment it’s not really that bad.”

AW “Do you think it will get worse?”

Participant (after a long silence) “It probably will” [014, 167-179]

(shop assistant, FUSS 10)

At the opposite end of the scale after the tape recorder had been turned off, another woman suggested;

“What about a group? Nice to know you aren’t the only one” [011]

(finance officer, FUSS 18)

This woman experienced the worst symptoms of all the study participants and she made this comment just as she was leaving the room. No other women made any comment about wanting contact with anyone else who had symptoms. Already it seems clear that women have different needs and one type of intervention will not suffice.

8.2.1 *Reasons for not seeking help*

The reasons given for not seeking help included fear of examination, embarrassment, being unsure if her symptoms warranted a visit to the doctor, either because she was making an unnecessary fuss or her symptoms were to be expected. For several of the women, fear of examination was the major reason for not seeking help. Comments such as “don’t want an exam, last thing you need after labour” [014, 347-348] and “don’t want to be fiddled about with anymore” [007, 157] made it clear that physical examination shortly after labour is seen as very unwelcome and one woman said she would be extremely anxious if an examination was necessary. Other comments fell into two categories; firstly, embarrassment which prompted comments such as;

“My husband said to me the other day, why haven’t you spoken to your health visitor about it and I said I said I’m too busy I guess—and I thought no you’re not—it’s too

embarrassing to walk into the health centre and say I'm having trouble with my bladder" [001, 292-294]

(teacher, FUSS 10)

One admitted knowing she should go to the doctor with her level of symptoms but "could not make herself go" [001, added comment after interview] and another said although she knew going to the doctor was an option she still would not go.

Secondly, some were unsure about the legitimacy of their concerns and wondered if they were making a fuss about nothing sometimes reinforced by the relatives and friends who had also taken no action;

"But you don't know if it is, how bad it is compared to say somebody else" [004, 192-193]

(office worker, FUSS 13)

"If I had known that every single one of my friends was having the same sort of problems...then I would have had no problems about and I do wonder if it needs to come from the medical profession approaching us" [001A, 99-101]

(teacher, FUSS 4)

"to see if they were getting the same things, to see whether its normal or not" (asking fiends and family) [010, 137]

(housewife, FUSS 10)

Knowledge of other people experiencing symptoms frequently led the women to make the assumption of normality, in particular if a family member suffered, as in this instance;

“yeah, that’s one of the normal ones isn’t it, because my Mum had that (leakage)”

[0013, 86-87]

(housewife, FUSS 9)

While others definitely did not think so;

“That’s not normal ‘cos you wasn’t like that before you had the baby” [007, 361-362]

(housewife, FUSS 9)

“I know it’s not normal, my mum’s a nurse, my sister-in-law’s a nurse and they’d know it’s not normal, you know mum’s constantly saying to me you don’t want to be using Tena for the rest of your life” [011, 120-122]

(finance officer, FUSS 18)

Although these women thought the symptoms were not normal, action had still not been taken. Others thought early symptoms would gradually go away and, although this can be true in the first 12 weeks, some were still saying this at 10 months postnatal. The long-term effects of persistent symptoms created a feeling of inevitability;

“They probably must think it’s almost normal, that people get old, it’s going to happen whether you like it or not, which is probably wrong” [003, 303-304]

(engineering task manager, FUSS 8)

The issues around perceived normality will be further explored in the discussion chapter. Of all the reasons for not seeking help, perhaps the strongest finding emerging from the data was the fear of an examination. This fear was often as a result of the traumatic effect of delivery. One woman described her delivery as “the worst nightmare of my life” and said she was still experiencing nightmares about it [002, 35]. When asked about personal help-seeking none of the women cited other’s inaction as a reason not to seek help. However, several women volunteered information about relatives who had tolerated symptoms for some time. This may have been because they felt the need to tell me that that was how it was; people do not seek help.

8.2.2 *When we would seek help*

All the women were asked what would be a potential trigger for help-seeking for them. Four women immediately admitted that going back to work would be a major trigger for action. Three of the women interviewed were teachers and they perceived this as a very difficult problem to deal with as demonstrated here;

“I can’t be in a classroom and have this happen. I made a mega effort and thought if it isn’t gone in the next 3-4 weeks then I will go and see someone because I can’t possibly have it while I am teaching” [001A, 49-54]

(teacher, FUSS 4)

and

“you can’t just leave the classroom full of kids to go to the toilet; I guess you would have to wear pads” [012, 279-281]

(teacher, FUSS 7)

How long symptoms might be left varied from a couple of months to “eventually” which translated as many months, maybe years. Obvious leaking that could be observed by others was a clear reason for seeking help, but some were utilising pads to deal with that. Women will often go to great lengths to conceal incontinence (Ashworth and Hagan 1993). Control seemed to be the major issue here; as long as symptoms could be hidden, seeking help could be delayed. Although one teacher was anxious about going back to work because of her symptoms, she had taken no action;

“This is something I am dreading when I am teaching because I can’t go to the toilet whenever I need to and the way I am as well when I need to go I have to go right away and that’s something I am concerned about you know” [008, 267-269]

(teacher, FUSS 10)

However, if it meant that others might find out then action was more likely as described below;

“I mean if it got to the stage where you couldn’t control the fact that you actually went to the toilet, I guess that would be a real problem” [005, 165-166]

(administrator, FUSS 3)

“You know just not being able to control yourself...I don’t fancy the idea of that” [007, 276-278]

(housewife, FUSS 9)

8.2.3 *Do we know what treatment we can have?*

Nine of the women had no idea what other treatment might be available; one other asked hopefully; “is there any choice?” [05, 89]. Three women said they might go for treatment if someone first explained to them what they might expect. Another thought there was an instrument that could be used to “tone you up” [008, 289]. “Specialist” help was thought to be necessary by only one woman [006, 165], the majority thought a doctor or nurse at the surgery [003, 296-297] would be able to help. One woman poignantly said she would go anywhere for a solution to the problem. The latent content findings had detailed two women who had asked if there was any treatment available, looking hopefully at the researcher as if that thought had not occurred to them previously. Flexible appointments which could be attended out of working hours was important to avoid explaining the reason for an appointment;

“Well, obviously somewhere local and obviously if I was going back to work, then obviously a time when I am off but yes” [004, 210-211]

(office worker, FUSS 13)

8.3 **Justifying doing nothing**

When asked why no help-seeking action had been taken, women gave similar reasons to those given for not doing pelvic floor muscle exercises to excuse inaction. Almost all the reasons related in some way or other to the exercises; many felt they had not performed them often enough, not given them enough time to work, or been too busy or forgotten to do them. A few of the women also felt guilty because they had forgotten to practice the exercises and believed they would be told the incontinence was their own fault;

“Me not doing them probably as regularly as I should, I think well if it is my fault that you know then there is not going to be a lot they can do about it” [004, 133]

(office worker, FUSS 13)

This is a commonly held view (Ashworth and Hagan 1993). There was a definite idea that the pelvic floor muscle exercises were the only option;

“I wouldn’t have gone to the doctor-I would just think oh dear that’s it; do exercises and pray” [012, 117-119]

(teacher, FUSS 7)

The post delivery bleeding masked the urinary leakage for some of the women, consequently they did not realise the extent of symptoms until the bleeding stopped;

“After the second one I think I probably did, but then you’re losing lots of fluid aren’t you at that time” [005, 269-270]

administrator, FUSS 3)

How severe or abnormal the problem was perceived to be had an influence on action, women were unable to self-assess the seriousness of the symptoms and were unsure whether to seek help.

8.3.1 *Minimising symptoms*

Symptoms were described variously as slight or not much by the women regardless, of the level. Other factors were used to excuse the symptoms; drinking causes it (leakage), or as

normal; it's expected after having a baby (frequency). While some described the symptoms as not acceptable, it was nevertheless not regarded as a huge problem and while it could be coped with no action was taken, as this woman explains;

"It's only a little bit, not like oh I've wet my pants" [009, 78]

(housewife, FUSS 16)

As long as there was no interference with normal life symptoms were tolerated. One woman who had had symptoms on and off since the birth of her first child said; "I mean I have had a little bit of that since but I had it before anyway" [005, 43], suggesting that somehow made it acceptable. Ignoring symptoms in the hope they would go away was also another common but possibly ineffective coping strategy. The woman experiencing the worst symptoms in the group had yet to take action and was still feeling that things were not serious enough for this;

"It's not major, you know it doesn't majorly, majorly destruct my life but it's something that I've got to get sorted, and sooner rather than later" [011, 298-300]

(finance officer, FUSS 18)

This woman wore a pad night and day to cope with the symptoms. Educational achievement made no difference, the group comprised a wide spectrum of educational attainment and there was no clear pattern emerging to suggest a typical strategy from particular groups of women.

8.3.2 *Restrictions*

The women were asked how incontinence would affect their lives if it became, in their opinion, unmanageable. One woman suggested she was reluctant to go swimming as she was worried

about leaking [004, 269-270]. Three women were wearing pads already, while two of them felt this was not satisfactory, the third claimed that her work was unaffected by using this coping strategy [011, 143-145], although she was not so happy with the effects on home life. Going out, what you could wear and activities such as running were also mentioned as areas that would be affected. The mother of two young boys said;

“The boys like me to play football with them and if I’m going to be wetting myself I won’t be able to do it” [007, 121-122]

(housewife, FUSS 9)

A strongly emerging theme from the data again was the issue of control, most women would be happy if they could control the effects of symptoms. Two women mentioned not feeling sexy if they had continence problems, in particular one, who wore a pad all the time, spoke of the perceived effect on her partner;

“No, because I don’t want to live my life, I know this is going on tape here, I want to go out and buy some nice sexy underwear and things like that” [011, 173-174] and; “in the morning the first thing you do is put your knickers on and stick your pad in, it must be so lovely for him to stand there and watch that in the morning” (partner) [011, 179-180]

(finance officer, FUSS 18)

When asked how they would cope with symptoms they perceived to be uncontrolled, women suggested the following; knowing where all the public toilets were when out and going to the toilet whenever the opportunity presented itself just to be sure. However, having to worry about

the location of toilets or having to rush to them all the time would spoil enjoyment of a day out, as this woman depicts;

“I’d worry about going out for long periods without being near a toilet or anything like that,... Yeh I think it would certainly make me more worried about going out and being around other people and stuff like that” [010, 171-173]

(housewife, FUSS 10)

One woman thought she would cope by taking spare clothes and pads out with her if she was going to be away from home for any length of time. During pregnancy one woman had resorted to big maternity pads as she had stress incontinence.

Women and their partners dealt with the issue in different ways. It transpired that the husbands of the majority of the women with bothersome urinary symptoms were aware of the symptoms.

This was either because they had had to help them cope or had witnessed the effects;

Participant “Well I was in such a state after, when I first got pregnant with F. I was in such a state of being sick and that and I was very upset and I told him what I’d done”

AW “What did he think about that, did he say anything?”

Participant “No”

AW “Does he know it is still happening?”

Participant “Yes”

AW “Has he said anything?”

Participant “No” [014, 116-123]

(shop assistant, FUSS 10)

This partner may be accepting this level of symptoms too, but his lack of comment may mean he is uncomfortable talking about it. In addition another interviewee said her partner was “brilliant and very understanding” and happy to talk to her about it [011, 263-264]. All these women were aware of the not inconsiderable restrictions on life and indeed some were experiencing them and yet no action had been taken. They seemed to exhibit a fatalistic attitude, as though they thought nothing could be done and they might as well get on with it. Although some had made positive comments the fact that they had done nothing may indicate they did not really believe there was hope.

8.4 What do symptoms mean to us?

Unsurprisingly symptoms were seen as quite a personal issue and they signified embarrassment for nearly half of the women, particularly if they had to buy pads. Words such as awful, dreadful, a disaster, were commonly used to describe what symptoms meant to the women if they could not be managed, as demonstrated here;

“Oh God it would ruin it, going out would be an absolute nightmare” [001, 139]

(teacher, FUSS 10)

The idea of having problems for many years was daunting;

“Yes, I see that as something, at 30, I’m not going to live with that, couldn’t be doing with that” [012, 320]

(teacher, FUSS 7)

When asked how continuing symptoms would make them feel, some of the women said depression would potentially be a real issue for them, several of whom felt the symptoms would make them worried, self-conscious and lacking in confidence. The very real fear of leaking in public was a terrifying thought for three of the women as illustrated here;

“If you started to leak, you know wet trousers etc, you’ve got to walk past all your colleagues” [007, 263-265]

(housewife, FUSS 9)

It was seen as a loss of dignity by one woman who stated;

“incontinence is real, when it doesn’t go away its not good” [001, 269-270]

(teacher, FUSS 10)

One woman summed the situation up well by stating; “well I wouldn’t like it to get much worse than what it is at the moment,” [014, 139]. This woman had a FUSS score of 13, putting her in the moderate category, she was also one of the women who wore a pad continually. It would seem that she does not consider this level of symptoms bothersome.

8.4.1 *Symptoms; personal*

The symptoms experienced by the women were varied and included stress incontinence, urgency, leakage at any time and difficulties with actually passing urine. Three women had had some degree of urinary retention during labour and often struggled to pass urine or did not realise when the bladder was full for some time after delivery as described by this woman;

“And I couldn’t always be sure that I was passing and I couldn’t feel myself when I was passing and I was having to push to actually get going, which was nasty being a bit sensitive down there” [001, 174-175]

(teacher, FUSS 10)

From the findings it appeared that this had been relatively easy to deal with. One of the women had been catheterised as she was unable to pass urine during labour, this was left in for a few days resulting in the woman struggling to get back to normal. Stress incontinence was experienced by six women; they tended to leak small amounts when coughing, laughing or sneezing. One woman describes her experience;

“It’s fine but I do have, I don’t feel as if I have proper control as what I did before, definitely you know when I cough or sneeze or laugh it leaks. I just don’t felt that it’s all sort of tightened all back up properly” [008, 52-54]

(teacher, FUSS 10)

This sort of symptom was often dealt with using pads. More difficult to cope with were the two remaining types of incontinence. Five women had urgency, this meant they had little warning and would leak very quickly if they didn’t get to the toilet. These women tended to urinate frequently to try and avoid problems, in fact compounding the problem. Four of the women had constant leaking, some only small amounts, but they could also leak larger amounts when the bladder was full or put under stress by the women jumping, coughing and sneezing etc;

“Even just sort of walking around, I permanently wear like a panty liner”.

AW “Right”

“I’m always sort of leaking” [004, 51-53]

(housewife, FUSS 13)

Constant leaking may be hard to conceal and again frequent urination was used to cope with this. All these women wore pads as well, but not always all the time. Several of the women suffered more than one type of symptom including urgency and faecal incontinence. Faecal incontinence was perceived as far worse, difficult to manage and much more embarrassing. Other comments about this are discussed earlier in this chapter.

8.4.2 *How serious is it?*

Several women used the word serious when talking about degrees of symptoms. However, perceptions of the word ‘serious’ varied. Two women felt incontinence was not a serious problem, while one declared her problem was not “serious enough to warrant pads” (007, 232). If the symptoms were thought to be serious, i.e. unmanageable, a trip to the hospital was envisaged. One mother, whose symptoms had worsened following the delivery of her second child, described it as “really bad”, but was using pads to cope [011, 24]. Again seriousness related to control;

“I can’t remember the last time leaked, so I guess that’s why I haven’t really bothered about it because I think, well, I’m not leaking so it can’t be too serious” [001, 340-341]

(teacher, FUSS 10)

This woman had symptoms of retention of urine.

Or lack of it;

“I mean if it got to the stage where you couldn’t control the fact that you actually went to the toilet, I guess that would be a real problem” [005, 165-166]

(administrator, FUSS 3)

An interesting assumption was made by two women; because no-one in their classes had volunteered symptoms they assumed they had none, although they had not discussed their own. At times the disclosure of symptoms goes unnoticed initially;

AW “Do you know of anyone else that has problems?”

Participant No, not.....”

AW “Would that be discussed?”

Participant “Not waterworks wise, I mean my sister’s got problems you know, other problems, but not waterworks. But she’s got other serious problems after giving birth and stuff but not waterworks.”

AW “Oh dear, no, and is that something that might come up in conversation in....”

Participant “but then saying that, actually, my younger sister, because she’s got a ten week old baby, I know she said the other day something about ‘oh I just wet myself’ but I don’t know whether its just one of those things or.....” [011, 225-234]

(finance officer, FUSS 18)

Clearly it had not occurred to this mother that her sister has symptoms, she had just accepted the situation indicating she thought this was normal.

8.4.3 *Symptoms that others have*

Although many women do not disclose symptoms most of the women knew of at least one older person with symptoms, sometimes this was because the symptoms were no longer controlled, usually related to the age of the person as this woman explains;

“She is going through a packet every couple of days of those pads, because you can buy them and because they are cheap it allows her...I mean she is buying her own, and it’s allowing us all to carry on hiding the problem and rather than facing it and going and getting help with it” [001A, 261-264] and; “you know she has put up with this for 50 years” [001A, 91-21]

(teacher, FUSS 4)

Several women had elderly relatives who had worn pads for years. This woman expressed concerns about ending up like that;

“She’s always standing there with her legs crossed when she coughs-don’t want to be like that” [007, 109-111]

(housewife, FUSS 9)

The same woman illustrated how increasing age and morbidity can make a previously manageable condition more difficult;

“Because of her emphysema, she finds it hard to, she’s really large; just to get up, she’ll struggle to get up and she’ll have a leak, and it’ll be oops, and then you know, I’m

in the bedroom and then one of the kids will make her laugh and it'll be 'oh I've wet myself" [013, 107-111]

(housewife, FUSS 9)

One woman, who had undertaken some care work prior to having her baby, recalled clients who appeared to make no effort to conceal or control symptoms;

"But they give up though and sometimes it's almost as if they want to, they don't even want to try to control it sometimes, if they're quite upset they'll think sometimes, I've known one woman to do it deliberately if she doesn't get what she wants, to sort of get back at you which is a bit strange." [002, 221-227]

(care worker, FUSS 1)

However, it seems not all aged incontinent women feel like this, several women described relations as being ashamed and upset by it, particularly as the problem may have worsened. Some of these women may have been coping with these symptoms for a long time and find it difficult to now be reliant on others to help them.

Few related accounts of women in the early postnatal period with problems; one had a sister-in-law who had mentioned using the NCT (National Childbirth Trust) sticker system as she had some stress incontinence. One woman talked during the arranged interview about her weekly NCT postnatal group where a woman had disclosed some leakage. The group were apparently sympathetic at the time but no-one else volunteered any information and the interviewee told me it was never mentioned again at the subsequent weekly meetings. This was a group of 20 women and it is extremely unlikely that none of them had any symptoms. This interviewee

assumed anyone with symptoms would have “dealt with it” as there was too much pride at stake. However, she had suffered retention of urine in labour and at the time of interview was still struggling to pass urine at times and was not aware when her bladder was full, despite this she had sought no help, she had not “dealt with it”. When challenged on this point she admitted she should have done something and could not explain her reluctance [001, 314-318].

Some women had friends with symptoms that had continued since delivery. Mostly they were stress incontinence symptoms, causing problems such as leakage during exercise (running, jumping, doing sit-ups etc) or leakage on sneezing or coughing. Often these friends would make a joke of these symptoms and the previous chapter has detailed some quotes that illustrate this. The latent content also revealed an interesting fact; most of the women laughed when talking about potentially embarrassing symptoms (including the researcher). This may have been to cover embarrassment, to effect trivialisation of a worrying situation or to pretend they were unconcerned.

8.5 Feelings for others

Overwhelmingly the women felt sympathy for those suffering urinary symptoms, comments such as “quite terrible isn’t it” [013, 315] and a “great loss of dignity” [001, 225-226] were typical of their reactions, but interestingly few suggested the woman should have done something;

“would be nice for them if they could seek help” [002, 208]

(care worker, FUSS 1)

“Sympathy, I’d probably think you should have gone and got something done about it, but then not being in their shoes, I don’t know [003, 197-198]

(engineering task manager, FUSS 8)

They expressed a desire to help them and, in particular, would not ridicule them. Two women felt embarrassment for the sufferers and two others were concerned that it was just seen as part of the general deterioration of old age when control was lost possibly because increasing infirmity may also affect mobility. On questioning about personal views of the future, the women universally declared they would not allow this to happen to them, they would have to take action;

“I don’t want to be like that, I don’t want to be like that now, I want to go through my life with S without having to deal with all this you know” [011, 255-256]

(finance officer, FUSS 18)

and

“If I have bladder problem that would be a disaster because there you have to be going to the toilet and changing yourself to make sure you do not smell of urine.....I think I would be spraying a lot of perfume around my body just kind of to hide it then I would be happy” [015, 139-142]

(care home worker, FUSS 5)

However, as already stated most of the women interviewed had at some time experienced some degree of symptoms, some had continuing symptoms and only one had taken any action thus far.

8.6 Not talking about it

Nearly all the women commented that incontinence was not an easy topic to discuss, describing it as a no-go area. Two women said there was a taboo about it which needed to be broken but was difficult to do. This echoed a similar comment made by one of the continence nurses;

“Yes, we’ll talk about sex and contraception, and we’ve joked about our first poo and things like that after giving birth, but no that’s never come up” [001, 250-251]
(teacher, FUSS 10)

Talking about it with contacts at antenatal classes was difficult, often they were new friends so perceived safe areas, such as the baby, were chosen for conversation. From the findings of the observation it was clear that the women took time to develop relationships. A small group attended by the researcher was very quiet and the women were not engaging in conversation with each other. The health visitor later explained they were a new group. Conversely, the second group observed was much larger, the women talked in groups and readily started getting chairs out as soon as they arrived. However, for a newcomer difficulties could still be experienced, one woman explained she struggled to join in until another new mother joined the group. At one set of classes the midwife asked the group at the first visit what subjects they wanted to know about and no-one mentioned urinary symptoms [008, 73-77]. There was concern that urinary symptoms were not talked about because they were not very common and disclosing symptoms was therefore risky. One woman thought a lot of people did have symptoms but just didn’t talk about it. Changes in society were blamed in different ways; one woman felt things might improve with a generation change to a more enlightened age, however, at the other end of the scale, another woman felt the lack of family networks in

today's society had contributed to women having no-one close to confide in [001 143-145].

Another had only found out about her mother's incontinence as she did her washing for her;

AW "How did you find out she had problems?"

Participant "Because I do all her washing"

AW "Oh right so she didn't tell you?"

Participant "No, she didn't actually. I confronted her, and said well you can wear panty liners, and that she should mention it to her GP, but my Mum's a very private person." [013, 99-103]

(housewife, FUSS 9)

There was also a question of who people would talk to; two women felt they could not bring the subject up themselves, either to admit personal symptoms or discuss another's;

"I haven't really; I wouldn't speak to her (mother-in-law) about that sort of thing I don't think" [010, 268]

(housewife, FUSS 10)

or

"I said to her speak to the nurse about learning some pelvic floor exercises, I didn't really feel I could say to her how to do it, I can't really tell my Nan. You know just squeeze your pelvic floor" [001, 231-233]

(teacher, FUSS 10)

Another woman whose mother had serious problems was selective who she discussed it with;

Participant "I mean she doesn't tell the whole world"
AW "no?"
Participant "She wouldn't say anything if you was here" (interviewer)
[007, 211-213]
(housewife, FUSS 9)

Not being asked specific questions by a health professional at the right time appeared to be a key issue. It may be that answering a direct question from a health professional would legitimise the symptoms and make disclosure of symptoms easier. Before childbirth it is possible that women are more open; the neighbour of an interviewee after her interview, who did not yet have children, expressed amazement that women did not talk about urinary problems.

8.6.1 *Who would we talk to?*

Although there was an obvious tendency not to talk about urinary symptoms, when asked if they knew of anyone they felt they could talk to most women had an answer. Six of the women thought they could discuss it with their mother but only one knew that her mother had symptoms. Some women described close friends that could be confidants, particularly if they also had children. One woman decided she would speak to a good friend as she thought her mother might be a bit embarrassed about talking about the subject;

Patient "I mean I have got a close friend I could talk to about those problems.

AW "So would you choose your friend rather than your mother?"

Patient “Oh definitely yes. Mum’s very, I mean I could talk to mum about it but it’s very, you know, she wouldn’t admit to having any of these problems I don’t think. She’d probably, I don’t know be a little bit embarrassed.” [003, 260-264]

(engineering task manager, FUSS 8)

Women who had babies around the same time were comforted by the fact that their friend understood. One had made a friend during NCT classes and perceived the recent shared experience and the fact that the friend was a nurse to be advantageous, as she explains here;

“One of my close friends that I’ve got to know since having a baby, she was a nurse, she’s just had her first baby, a girl, she’s 42 so she’s old... and we meet quite a lot, and we’re very open about what’s happened to us, and you know, what’s gone on down there, and if it’s still sore or anything I guess I would have probably talked with her about it and then she might have said if I should do anything, I think if I hadn’t had her and a couple of others that I’m really open with I don’t know what I would have done, I think I would have lost a lot of confidence.” [012, 162-172]

(teacher, FUSS 10)

However, it was clear from the observation findings that it was not always easy to make new friends at mothers groups, particularly if returning to work early meant attendance was not regular. In addition, it may be more difficult to raise sensitive subjects. At the two groups attended, the only question asked that did not relate to the baby was from a mother complaining of feeling very tired. Some groups may gel better than others, the first group attended was small and the members were quiet whereas the second group was much larger, more organised and noisy.

Other female relations such as mothers-in-law or grandmothers could sometimes be confidants depending on the relationship. Another woman had a mother-in-law who was a nurse and had asked her if she was doing pelvic floor muscle exercises. It appeared that where the female relation had some medical knowledge they were more likely to talk to them. As previously mentioned several women reported that their husbands or partners were aware and very understanding, however, one declared that she could not bear her boyfriend knowing, she just couldn't tell him;

“Well no I just think I certainly wouldn't. I wouldn't want my boyfriend knowing” [009, 267]

(housewife, FUSS 16)

Opinion was divided on the most likely time to be comfortable talking about symptoms. This ranged from the antenatal period, when it was perceived they were more likely to talk about personal health generally, to the postnatal period where meetings such as breast feeding groups might stimulate discussion as a good relationship would exist. One woman inferred that immediately after delivery everything was a bit strange and new and this would often prompt conversation. On the whole it seemed that friends were the most likely confidants.

It was clear that there came a time for several of the women when they felt they needed to take action and found they were not alone;

“I mean I have finally plucked up the courage to speak to quite a few people and they have all had problems” [001A, 69-70]

(teacher, FUSS 4)

Unfortunately there is very little in the literature on this aspect during the postnatal period.

In addition, the same woman found it difficult to listen to older relations disclosing incontinence, as described here;

“Mum and I find it terribly uncomfortable when she tells us about her latest accidents. Even though she is a 90 year old and she is perfectly entitled to have accidents, it is still...you think...don't go there” [001A, 165-167]

(teacher, FUSS 4)

This was a well educated school teacher who had shown no hesitation in talking about this area with her peers and yet was uncomfortable dealing with her grandmother's disclosures. In contrast, some women had appeared happy to talk about the symptoms experienced by older relations; it may be that this meant they could divert the conversation from themselves.

In the search for interviewees two postnatal groups were attended by the researcher. At the subsequent interview with a woman recruited from this group, she revealed that, although no comments were made while I was there, my presence had stimulated a lot of conversation after I left.

8.6.2 *Things we do talk about*

Almost exclusively it seemed the topic of conversation at the mother and baby group during the postnatal period was the baby as illustrated here;

“Mostly the babies really, what the growth is and sleeping and oh your baby’s having a dummy? You certainly don’t discuss personal things” [003, 189-191]

(engineering task manager, FUSS 8)

“Mainly things to do with the baby, not a great deal to do with the mum” [005, 177]

(administrator, FUSS 3)

“We just sort of sit around and sort of talk to people with babies of the same age, and normally it’s about baby stuff, not really your own personal health” [004, 173-175]

(office worker, FUSS 13)

The NCT postnatal course included asking about emotional issues such as relationship with husbands and partners, postnatal depression and encouraged an open attitude.

In addition, from the latent content findings it seemed that at times other subjects were used as a subterfuge possibly to avoid discussing difficult subjects. For example, one woman kept turning the conversation to her elderly relatives with symptoms whenever asked about her symptoms. Turning and talking to the baby also seemed to be used as a diversionary tactic at times.

8.7 Feelings about general health

The emphasis placed on personal health around this time appears to be negligible for some women;

AW “what about personal health, how high a priority is it at the moment; looking after you?”

Participant “I come at the bottom of the list, I always do”

AW “Right”

Participant “No matter what is going on in this world or in our lives, I’m always at the bottom of my own personal list...”

AW “Right”

Participant “I’m at the bottom of it”

AW “why is that?”

Participant “It’s just me, I suppose I’m not selfish, I put everybody else first, I mean obviously K’s a huge priority at the moment.....”

AW “Yes of course”

Participant “and I do make time for myself, and V (older stepdaughter) helps me we do shift swaps of feeding, you know if you do this for a little while, then I’ll go and do this and then I’ll come over and take over and you can go and do this and she’s really good she really helps me because my husband works nights” [007, 333-348]
(housewife, FUSS 9)

This woman stated four times that her health was low priority, equating looking after herself with selfishness. When she does say she makes time for herself it is clear that she means she has help from her daughter around the home, which is not making time for herself. However, three women said personal health was important for the baby’s sake; this woman made the following comment when asked how high a priority she placed on personal health currently;

“At the moment, pretty low down, which is probably wrong really because if I get ill then who cares for the baby, I know I’m not eating as much as I should be which is bad when you’re feeding but its sort of a case of..... but luckily baby is very healthy so at the moment my health is pretty, well actually I’ve been amazed at how healthy I’ve felt since I’ve had her because normally when I feel run down and tired I get colds and I haven’t but I wouldn’t say it was very high up, it always used to be but certainly it’s not anymore” [003, 205-210]

(engineering task manager, FUSS 8)

Most of the women who commented appeared to be of the opinion that it was not appropriate to worry about personal health for their own sake. Either they could not worry about it or they used the baby as a reason. As the pelvic floor did not have a direct impact on care of the baby it seemed to be given less priority. In other cultures, as previously mentioned by the Nigerian interviewee, there is a different way of thinking, allowing acceptance of the caring for personal health for the sake of the woman not the child;

“you realise you don’t have to think of cooking, you don’t have to think of, you don’t want to see your baby, if you want them to feed the baby they will take the baby and do it for you, your life it is nice and you sleep, you don’t feel, there is no pressure of you going back to work, there’s no pressure of all these things like how am I going to pay all these bills, it’s not there. You just take care of you, I love it.....” [015, 123-127]

(care home worker, FUSS 5)

Another woman had her life mapped out, this included furthering her career, she had worked hard to achieve her degree and she was not willing to waste it. This opinion was shared by an

interviewee who felt she could be there for her family and have her own life too. The overwhelming number of comments inferred that “getting on with it” was the required programme;

“another burden like periods and things like that” [012, 264]

(teacher, FUSS 7)

and

“It’s a problem we’ve got to deal with ourselves and just get on with it” [011, 218-219]

(finance officer, FUSS 18)

Being ill or troubled by urinary symptoms was not an excuse to give up;

“We have to get up and get on with it if we’ve got children to look after and I’m that sort of person, just put up with it, just get on with it” [014, 150-152]

(shop assistant, FUSS 10)

8.8 Summary of category

The title of this category “responding to the messages” reflects the reactions of the women to the messages received, whether internal or external. Their response to the external messages from information on pelvic floor muscle exercise and the possible results of not doing them may be influenced by the interpretations they place on the information and the concerns they may have as a result of these interpretations. The meanings women may place on the messages received may be assumed but are, in reality, unknown. There was conflict between worrying about possible effects on lifestyle and seemingly inevitable use of coping strategies and the worry of whether action was appropriate, possible or indeed available. In particular, the effect of

comments by friends and relatives may encourage normalisation of the symptoms unbeknown to the health professionals. This may be disempowering and being unsure what is considered normal may create a barrier.

Although no statistical analysis was undertaken, it was interesting to note that symptoms and quality of life using the FUSS measurement tool did appear to be related in at least some of the sample. This may give an indication of the level of both the symptoms caused some of the women. A sample transcript is included as Appendix 15.

This completes the exploration of the findings; the next chapter will look at the core category which emerged from chapters 5-8.

Core category;

Overcoming barriers to facilitate empowerment.

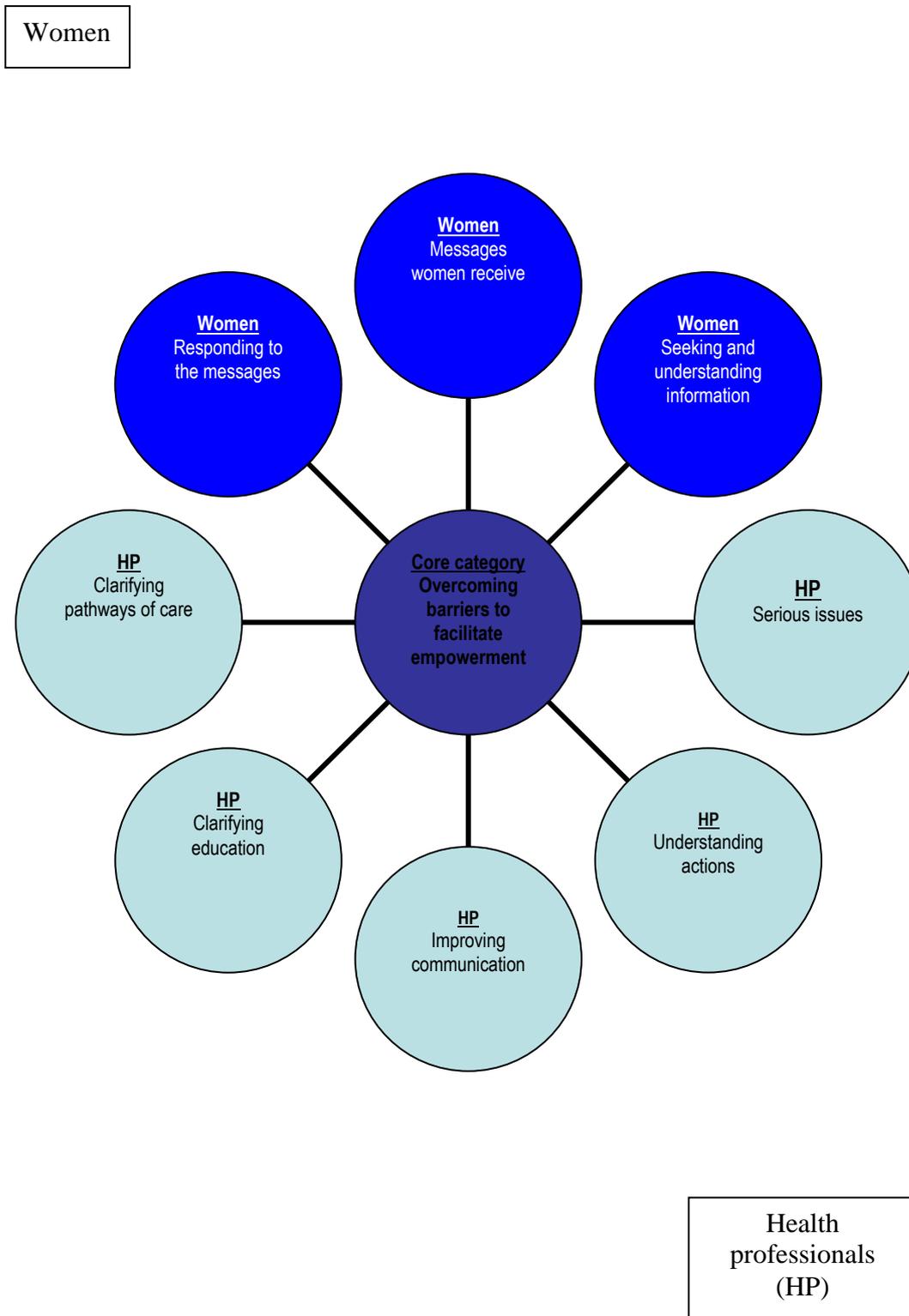
9.1 Introduction

The core category “overcoming barriers to facilitate empowerment“ (Figure 15, below) embodies the categories previously described, the issues discussed have highlighted barriers to knowledge, understanding and consequent action, caused at times by inadequate or infrequent information which may be due to poor communication or education. This may be influenced by poor knowledge of the process or the role of others within postnatal care on the part of health professionals. In addition, stereotypical symbolic language sometimes used by health professionals may be misinterpreted by the women, unbeknown to the health professionals. Finally, powerful messages may be internally conveyed by friends and relatives, encouraging normalisation of symptoms. The following four areas therefore are examined;

- Knowledge
- Communication
- Barriers
- Empowerment

Figure 15

Categories leading to the core category



9.2 Knowledge

This section seeks to identify from the findings how the interpretation of knowledge or the lack of it may impinge on care and help-seeking.

9.2.1 *Messages women receive*

How knowledge is imparted and by whom may have a bearing on the reactions of the women. It seems women do not have a good understanding of urinary symptoms, possible treatments and how and where to access help. Information is available and should be given to the women, however, it seems this does not always happen and, in addition, the timing or presentation of the material may affect whether the women actually use the information. Women also often only attended antenatal classes during the first pregnancy and, therefore, did not receive any updated information in subsequent pregnancies. This was an issue for women who had several children or spaced families, often it was a number of years since the last pregnancy.

9.2.2 *Seeking and understanding information*

If health professionals did not give information, women had to look elsewhere. However, at times the women were unsure how to access help if they did have urinary symptoms. In particular, women were sometimes unclear whether any help was available. Women also received unsolicited advice from well meaning relatives and friends or sought advice if nothing was forthcoming from official sources. This advice could also be incorrect, possibly based on half-remembered experiences several years ago. Some women bought books on pregnancy which should contain accurate information. The women were given booklets in pregnancy by the midwife, which do have information in them, but none of the women cited them when asked where they would obtain information about the pelvic floor. The internet is an increasing source

of knowledge that does not always give accurate information unless official sources are used; none of the women interviewed had mentioned searching the internet, although one did suggest NHS Direct as an information source.

9.2.3 *Serious issues*

In labour there is a risk of urinary retention which can have long-lasting, serious effects and labour can be delayed because of a full bladder. Women needed to be aware of this and taught to take appropriate preventative action before they are in labour and again reminded during it. However, neither of the midwives at the focus groups gave information on this to the women and none of the women interviewed seemed to be aware of this risk. One woman had complained that her midwife kept telling her to go to the toilet but did not explain why. Midwives may not always remember or have the time to ask women if they are passing urine regularly if staffing levels are too low. The women are often in pain or have no sensation of needing to pass urine and may be unaware the bladder is full.

9.2.4 *Clarifying education*

The knowledge of the women depends on several variables, but primarily good helpful information should come from the health professional. From information imparted at the focus group it was apparent that some primary care professionals may be out of date, disinterested or uninformed (particularly some general practitioners). Therefore, there was a danger that where information was given to women it might at times be incorrect or unhelpful, which would be extremely damaging and might stop further help-seeking for symptoms after delivery. Education sessions for health professionals where available were poorly attended due to staffing problems or possible lack of interest. Not all members of the focus groups seemed to be aware how long the exercises should be undertaken for or the frequency. Education for the

women in the antenatal period was designed by the individual midwife, there appeared to be no standardisation. In addition, the rehabilitation of the pelvic floor muscles may not be emphasised or what might be expected in the early postnatal period in terms of urinary symptoms.

9.3 Communication

So far it has emerged that there is a lack of knowledge both with the women and the health professional and that women may access other avenues that may not be useful or accurate as an alternative. In addition, knowledge can be interlinked to communication and problems can occur through lack of communication, even if knowledge is sound. This next part will identify whether communication problems could have a big effect on how women behave.

9.3.1 *Clarifying pathways of care*

It was evident that health professionals had little knowledge of the roles or boundaries of the other participants. In particular, the health visitor was unclear on the treatment received by new mothers in the immediate postnatal period. Members of the primary health care team did not seem to communicate effectively and in addition, “hand over” from midwife to health visitor seemed sketchy at best. The physiotherapy team apparently did not communicate with anyone about treatment given in the postnatal period. There were good teams of continence nurses in both areas who, for contractual reasons, are not involved until the woman is discharged from the midwife. There seemed to be a lack of knowledge about their role and accessibility after that; they will accept referrals from health professionals such as health visitors and practice nurses.

9.3.2 *Improving communication*

From the start the reason behind important messages, such as remembering to go to the toilet in labour, are not always communicated fully to the mothers. Communicating information early about urinary symptoms and prevention is key here, yet the women at times seemed to have little input during pregnancy, scant communication in the postnatal period and no follow-up after the postnatal examination. In addition, questioning about symptoms may not be specific enough to elicit all the symptoms they may have. Communication may be improved by asking specific questions, thus making discussing difficult topics easier. This was mentioned by several women and most members of the focus groups and yet it does not appear to happen. Not all the women could remember being asked about urinary symptoms or performance of pelvic floor muscle exercises after delivery, gently reminding women regularly when they are busy with a new baby might encourage concordance.

9.3.3 *Responding to the messages*

Communication can also be detrimental and friends and relatives can portray frightening images of prolonged embarrassing symptoms that have to be tolerated as they are 'normal', in addition, this is compounded by television advertisements advocating continence pads as an acceptable treatment for incontinence. This may have an effect on help-seeking as it seems hopeless and women may feel obligated to "get on with it" as others have. Because women are preoccupied with the baby after delivery they are often unwilling to consider personal health and this may not be emphasised enough by those caring for the women. The continence nurses had found this when trying to educate postnatal mothers.

9.3.4 *Understanding actions*

Professionals need to try to understand why women do not always take action. Most importantly they may not find the level of symptoms that they experience bothersome and make a decision not to seek help based on that. However, it may also be, as discussed above, that they are unaware of possible treatments or the ways to access them. Also issues of communication have been highlighted, particularly asking direct questions of the women. For those women who do have the courage to seek help there is not always a sympathetic or helpful response, in particular some general practitioners may be disinterested or ill-informed at times.

9.4 **Barriers**

There is a certain amount of overlap in this section; problems relating to knowledge and communication will create barriers. If knowledge is unsound or lacking whether through communication problems or actual known information, this creates a barrier to good informed care and thus the women may struggle to understand what is necessary to get help. From the information obtained during the research it is clear there are definite barriers to empowerment for both staff and patients. Good communication skills are useless if the knowledge base is not there and conversely if communication skills are poor, good information will not be imparted effectively. Education must also be delivered at an appropriate time early in pregnancy so that the women are already familiar with the process by the time they are busy and stressed with a new baby, they will also need reminding.

Lack of communication between health professionals can mean fragmented care; in addition, inconsistencies in antenatal education mean some women may approach labour and motherhood without the necessary skills to cope or knowledge regarding access to help in

coping. A lack of skills and difficulties obtaining necessary training, including lack of protected time and funding locally, are barriers for health care professionals. Colleagues who do not express any interest in learning new skills or trying to help women with symptoms are discouraging for those who do want to improve services.

Further barriers are imposed by government policies (DH 2007, DH 2007a, DH 2006a), which contain recommendations that may be inappropriate for the long term staffing levels available, however, trusts are forced to implement them. This may result in less than adequate care; in addition, women can suffer serious effects, such as retention of urine, if a midwife is not available to remind her. This clearly happens in the local area and one woman still has severe problems 10 months later as a result of this. It was obvious that although one midwife viewed the changes positively, the other one did not, fearing as happened, that care would suffer. Reorganisation of care involving all professionals is needed to solve the problems of communication and education which may hamper the provision of good care in the postnatal period for these women; primary care can and should be more involved in the ongoing health of postnatal women after the midwife has discharged them.

From the viewpoint of the women there are several barriers to try and overcome. Lack of knowledge imparted includes; duration and abnormality of urinary symptoms, frequency and duration of pelvic floor muscle exercises, importance of urination in labour and where to go for help with persistent urinary symptoms. Multiparous women often did not attend antenatal classes anyway and therefore did not receive any updated information; in addition, there was an assumption that they knew everything as they had already had a child. Some found it difficult to broach the subject due to embarrassment or fear of being made to look stupid as they were unaware of what was expected after childbirth. The influence of peers and relatives

often presented a powerful barrier, conveying images of normality, triviality and tolerance of symptoms. However, some relatives were well informed and gave good advice. There was a general impression from the women that there was no other available effective treatment and that blame would be apportioned for not continuing with pelvic floor muscle exercises. Also being preoccupied with the new baby could mean that advice, although given, was not read or followed.

9.5 Empowerment

To empower is to enable or give authority to (Oxford Reference Dictionary 1986) this implies control, power, and authority for the individual and also choice and permission. In health care there may be situations where empowerment is more difficult in the light of staff or facility problems or medical necessity. In addition, even the most aware of women may feel disempowered by one event outside their control if it is unexpected (Crossley 2007). For example, in this study a midwife discussed a situation where three women were cared for by one midwife, a lack of staff resulted in poor supervision of bladder care for one woman. However, better understanding of the issues will enable women to be involved in their care in a more meaningful way, which will increase empowerment. While empowerment is embraced by many there is no clear definition in health care, although one suggestion is that it is a helping process to help form valuable and respectful partnerships (Rodwell 1996). In addition, while empowerment is assumed to be good for the patient it must be clearly defined (Tones 1998).

It has been suggested that to empower patients the health carers themselves need to be empowered first (Latter 1998, Gordon 1998). Empowerment is possible when people (carers or patients) are communicated with effectively and given the knowledge to understand and communicate their wishes fully and feel they are respected and included in discussions about

care (Gordon 1998). This must also include discussion of options when wishes are not possible; this can otherwise lead to feelings of failure when other interventions become medically necessary. The influence of the different roles expected in society and also of friends and family is important, this is further explored in the discussion and played a large part in this study. The power of influence of others must not be underestimated (Gordon 1998). From the perspective of urinary symptoms, women experience powerlessness when symptoms cannot be hidden or controlled and feel vulnerable (Hagglund and Ahlstrom 2007). However, not all patients wish to make personal care decisions but nevertheless experience powerlessness when unsure when to seek help, for example patients newly diagnosed with a chronic condition can experience stress and anxiety as they are now “different” (Aujolat et al 2007). Anxiety is experienced in the social dimension as they are unsure if they can continue their normal role in society and in the personal dimension as their self-image is changed and they wonder if they are still normal. Feelings of insecurity and a disrupted identity are experienced. This can be applied to the new mother who may have permanent urinary symptoms. It can be seen, therefore, that problems with empowerment or enabling can be barriers to good care and help-seeking and leave women and health professionals dissatisfied and frustrated. Also the wishes of the woman must be respected, if she does not find the symptoms bothersome and, therefore, is not willing to access care.

The policies, therefore, that are developed to drive care, need to be manageable and evaluated before implementation, with maximum input from those who will work with the policy. Education and access to it should be enabled for all those caring for women during this important time in their lives. Women may rely on health professionals to help them understand the changes that are happening, partly because they may have much less prior knowledge about motherhood in general; families are smaller and geographically more separate, reducing the local information

network and inevitably personal confidence to make decisions about health care. Lack of knowledge may mean they fail to act when they should both for treatment and prevention. Women may also access other sources of information to gain knowledge as detailed above.

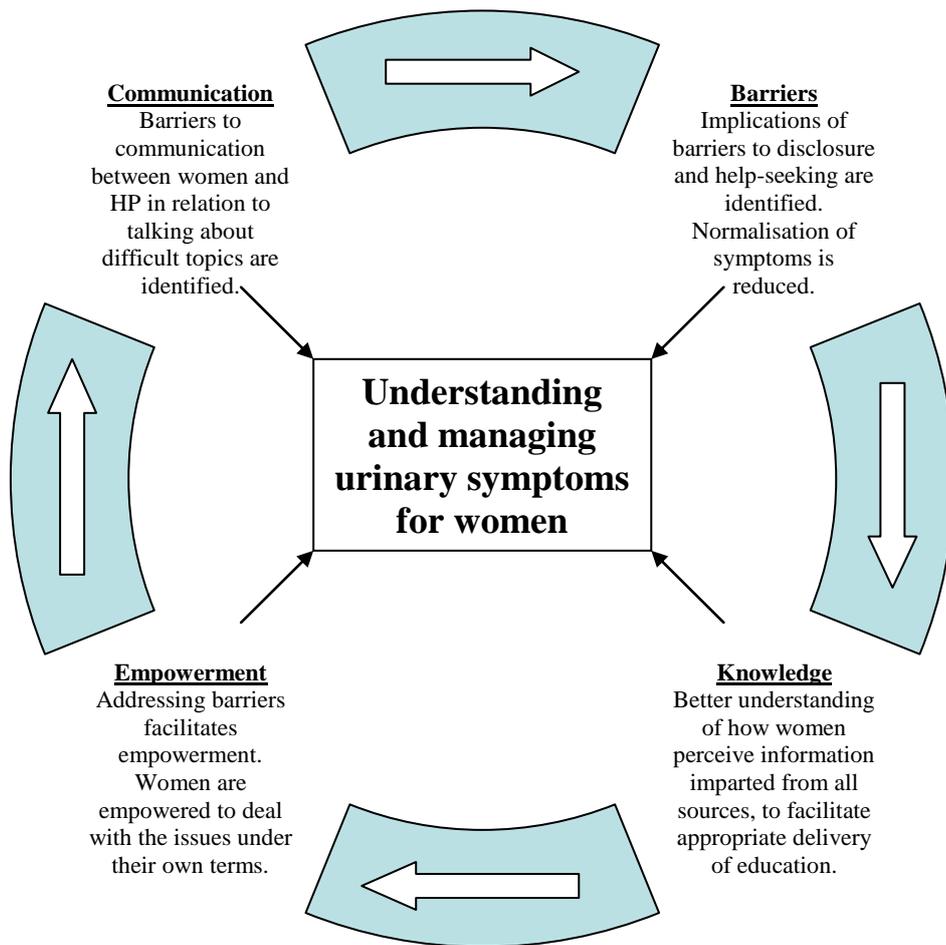
9.6 Summary

In summary, this study has exposed the facts that knowledge and communication are at times poor in postnatal care generally. Successive government policies have attempted to correct this but still national surveys find areas of concern (Audit Commission 1997, National Perinatal Epidemiology Unit 2006). Effects are clear on staff as well as women; staff struggle to implement recommendations in government documents with inadequate staff and equipment, whilst women sometimes receive inadequate care and information as a result. Health professionals need to be able to take an interest in the women and regularly ask them specific questions to encourage women to view the health of their pelvic floor as a normal subject for discussion, not a taboo subject that should not be mentioned. Women may at times be unsure and anxious about asking for help and in this study several had some symptoms. Only one had sought help; she had been told it was normal and sent away.

If care, education and communication were to improve, women would be empowered to make an accurately informed decision regarding seeking care without fear of ridicule or rejection, reducing long-term sequelae of childbirth and increasing patient satisfaction at a time when the stress of caring for a newborn baby is great. However, the findings revealed that these women at least were prepared to discuss urinary symptoms if asked specific questions. Broaching the subject was difficult and being sure that concerns were legitimate. Simply asking direct questions and doing this regularly would empower women to seek help from the proper channels. Crucially, however, health professionals at all levels need further help in personal

awareness of the importance of symptoms and the necessary action to remedy them. In particular, this may facilitate reducing the power of the friends and relatives encouragement to view symptoms as normal. Communication and shared knowledge among all professionals who care for postnatal women would increase empowerment. Figure 16 shows diagrammatically how this could be brought about by identifying and removing gaps in knowledge and communication for both women and professionals, thus also removing barriers to care and enabling empowerment for both women and health professionals, to improve understanding and management of urinary symptoms for women.

**Figure 16 Applying the core category;
Overcoming barriers to facilitate empowerment**



Legend *HP; Health professional*

Discussion

10.1 Introduction

This study drew on grounded theory to reach an understanding and explanation of the experiences of postnatal women in relation to urinary symptoms. The discussion aims to reach an explanation of the core category (overcoming barriers to facilitate empowerment) in the light of previous research and theory. The following sections draw on research that informs the concepts leading to a detailed analysis of the core category and the theories that further my understanding of the core category. This core category has enabled a new understanding of the experiences of urinary symptoms in women in the postnatal period to be reached and is therefore central to developing new ways to enable both women and health professionals to approach this issue. The findings are discussed in the light of other policy and literature available on the subject to identify the new knowledge this study has provided. Prior review of the literature on the aspects being researched was not undertaken, in accordance with grounded theory methodology.

The following areas are explored;

- The policy context
- The pregnancy and birth context
- Normalisation
- Communication
- Empowerment
- Reflexivity
- Limitations
- Implications for practice

10.2 The policy context

This first section briefly reviews recent UK policy that exists to guide maternity care. This was necessary to identify the care and information that women should reasonably expect to receive. A number of government policies have attempted to revitalise the maternity care women receive (DH 2007, 2007a, NICE 2008, 2006) and these have been reviewed. In addition the available policy guidance for assessment and treatment of urinary symptoms was reviewed to identify the preferred pathway for women with enduring symptoms (NICE 2006a, Martin et al 2006).

In 2006 NICE (The National Institute for Health and Clinical Excellence) published guidance for the postnatal care of women. Clear advice was advised on a range of common postnatal maternal health problems such as urinary incontinence, that had often previously been neglected (Thompson et al 2002). The guidance suggested women with stress or mixed urinary incontinence should be taught pelvic floor muscle exercises with further evaluation recommended if improvement was not achieved. However, the full guidance for the NICE document did note that although pelvic floor muscle exercises were found to be effective in the short term, improvement did not appear to be maintained in the long term (NICE 2006). Findings that were substantiated in the systematic review conducted for this study, and by the International Continence Society (Wilson et al 2005).

Other urinary symptoms which can be evident were also discussed. Urinary retention can be more serious and urgent action was advised if women had not passed urine six hours after delivery. However, no management principles based on evidence from research were identified in the literature (NICE 2006, Zaki et al 2004). Urge incontinence which can co-exist with stress

urinary incontinence was not addressed. The authors were not able to identify evidence on the following: competencies necessary to identify and manage urinary symptoms, optimum frequency for assessment of urinary symptoms, and educational needs of women with regard to urinary problems in the postnatal period during the literature review for the NICE (2006) document. In addition, the document contained no specific advice about what should be discussed at the postnatal visit at six weeks. A consultation is advised but 6 weeks may be too early for assessment of persistent symptoms such as stress or faecal incontinence, many of which may have disappeared by twelve weeks postnatal (Sharif and Jordan 1995). Conversely Piejko (2006) advocates an earlier visit at approximately 2-4 weeks postnatal to identify serious problems such as persistent difficulties passing urine. A more recent NICE publication on intrapartum care (NICE 2007) advised that all women should be regularly asked about frequency of bladder emptying during labour to reduce the risk of urinary retention.

NICE has also produced guidance on the management of all women with urinary incontinence in all women not just those in the postnatal period (NICE 2006a). This advises a full and thorough assessment to identify the exact type of incontinence and specifies the intensity and duration of pelvic floor muscle exercises considered possibly beneficial. The guidance also suggests that lifestyle measures such as reducing caffeine, modifying fluid intake and losing weight are also important. In addition a programme of pelvic floor exercises and bladder training was advised for postnatal women with frequency and urgency. A recent Health Technology Assessment detailed methods of assessment for urinary incontinence (Martin et al 2006). Although interpretation was at times difficult due to a large number of diagnostic tests and symptom scoring tools being used, the review identified that most simple diagnostic methods could be undertaken in primary care. This may offer an alternative to those women who do not wish to attend hospital.

Recent guidance from NICE on antenatal care gives only limited advice on for the prevention or treatment of urinary incontinence. It recommends that pelvic floor muscle exercises are discussed at the booking appointment and that “postnatal self care” is discussed at 36 weeks. However, it is unclear what this includes (NICE 2008). In the section headed “management of common symptoms in pregnancy” there is no mention of urinary symptoms although it is suggested that a mid-stream urine sample should be sent to the laboratory for all women to test for asymptomatic bacteriuria. It is also suggested that education may be supported by booklets such as “The Pregnancy Book (DH 2007b) and locally all first time mothers receive a copy of this.

So to recapitulate, although information and advice on incontinence is available, via national guidance and government policy, the women may at times receive inconsistent or possibly no information from some health professionals. This may have an effect on help-seeking in those women who experience enduring urinary symptoms.

10.3 The pregnancy and childbirth context

This section briefly explores the education women receive in the antenatal period with particular regard to urinary symptoms and avoidable risk factors. In addition women’s experiences in the postnatal period in general are reviewed briefly and in particular the experience of urinary symptoms.

10.3.1 Antenatal education

The findings from the interviews revealed inconsistency in the programme for the antenatal classes; the content usually being at the discretion of the midwife. Classes did not always

include discussion on urinary symptoms or the pelvic floor and several of the women interviewed were unaware of the risks of urinary retention and reported they had not had clear instruction on pelvic floor muscle exercises. Only six of the women interviewed remembered being told about pelvic floor muscle exercises during antenatal classes. In addition from the focus group findings one midwife said she did not include pelvic floor muscle exercise instruction in her classes. It is difficult to know how representative this is although there is evidence from other literature that women sometimes feel let down by professionals who did not adequately prepare them for childbirth and also by friends and family who did not tell them how painful and difficult it could be (Crossley 2007, Miller 2005). This lack of preparation could have implications for urinary retention and efficient performance of pelvic floor muscle exercises. In addition, women may not remember everything they are told at classes and repeated advice would be useful. Women who were not pregnant for the first time were unlikely to attend antenatal classes at all. Indeed the findings identified that most women who attended antenatal classes were primiparous. The impact of antenatal education may also be limited as few women attended a second time because they did not consider it necessary or because it was difficult with other young children. How women interpret the information given to them and strategies employed to access other information is explored later in the chapter.

10.3.2 *The postnatal experience*

While the purpose of this study was to explore the experiences of women in the postnatal period with regard to urinary symptoms the possible influence of other experiences, support and physical symptoms postnatally was important and therefore the relevant literature was briefly explored. Although in this section, relationships to the findings may at times appear tentative, it is important to set the women's experience of urinary incontinence in the overall context of the physical effects of pregnancy and childbirth. In addition given the reported wide

prevalence of urinary symptoms noted earlier and the reluctance to seek help which is discussed later in this chapter, there was a need to understand the experiences of women and the other influences that colour their reactions in both the short and long term.

The influence of the length of stay in hospital after delivery is uncertain. Although most women leave hospital earlier now, in as little as six hours in some cases this may not always be an advantage. For example, the only woman in this study who had had a six hour discharge had been sent home without her postnatal pack of information and midwife contact telephone number. However, as she was the only woman in the study to have had a six hour discharge it is not possible to say how representative this may be. Another woman had a home birth but no summary of the birth was sent to the surgery, consequently the general practitioner did not visit. However, her experience overall was very positive, she felt fully involved in the decision making and was happy with care from the midwife. Also, surveys of postnatal women have identified concerns with care and conditions while in hospital (Audit Commission 1997, National Perinatal Epidemiology Unit 2006).

After discharge from the midwife the local health visitors were responsible for care. However, they were focussed on the baby and a health visitor who took part in the focus groups admitted she did not ask women about urinary symptoms. The findings identified that most of the women viewed the role of the health visitor as mainly for advice regarding the care and development of the baby but some mothers found guidance with regard to postnatal depression invaluable (Russell and Drennan 2007). However, little involvement with physical health of the mothers appeared to be expected by women or the health visitors (Russell and Drennan 2007, Parker 2001). The literature is limited on women's enduring physical health. For example nearly all studies identified involving health visitors related to postnatal depression or psychological

issues and were not relevant to this study. While it is recognised that this is a serious issue in itself, it may be possible that some mental health problems are caused or exacerbated by a difficult experience in labour or postnatally coupled with unexpected enduring physical symptoms.

10.3.3 *Physical symptoms*

Following delivery women may suffer other health problems apart from urinary symptoms, and the findings demonstrated that some women did have ongoing issues that made coping with life difficult, including four who suffered perineal pain and one who was troubled by haemorrhoids. A postal survey of 1391 women delivering in Grampian (response rate 89.8%) identified high levels of maternal morbidity, with 85% experiencing at least one health problem while still in hospital (significant at 0.1%) with 76% on average experiencing at least one problem for as long as 12-18 months after delivery which was significant at 5% (Glazener et al 1993).

Several researchers have attempted to improve maternal mental and physical health by specific interventions in the postnatal period. While some research has identified the fact that women may benefit psychologically from interventions in the postnatal period (MacArthur et al 2002), other studies have found no evidence of effectiveness for physical or psychological outcomes (Lumley et al 2006, Reid et al 2002, Morrell et al 2000). For example a large randomised trial (18,555) using an intervention involving increased training for health professionals, increased and improved literature availability and a range of other support found that women's physical health scores were not significantly different in the intervention or control groups (mean scores 52.86 and 52.88) (Lumley et al 2006). This was also true of the mental health scores (mean scores 45.98 and 46.30). The trial concluded that the intervention not

been effective. Indeed some trials had increased costs in addition to failing to improve health (Morrell et al 2000). The overriding themes emerging here are that women may prefer more control over the maternity experience, at times need more helpful information in pregnancy, labour and postnatally, and may also experience dissatisfaction with care particularly in the postnatal period.

10.3.4 *Women's experiences of urinary symptoms*

This section explores the relationship between the findings and the literature with regard to women's experiences of urinary symptoms. The focus is on postnatal symptoms but some literature pertaining to older women with symptoms was also included as it may be that women's reactions are similar over time. Research into postnatal urinary symptoms has shown that women may often experience troublesome symptoms (Mason et al 1999a, 2001). For example, a large study of 11,701 women undertaken at the University of Birmingham identified many enduring physical symptoms as much as nine years after delivery (MacArthur et al 1991). In particular 1782 (15.2%) reported new stress incontinence lasting more than six weeks postnatal and 668 (5.7%) had urinary frequency. However, women may at the same time complain of the effect the symptoms have on lifestyle but later say they are happy with their state, thus giving contradictory information (Mason 1999a). Those with symptoms may also fear being labelled by the condition and Ashworth and Hagan (1993) describe "defensive denial" as a way of coping and suggested sufferers try to control the problem in order to subordinate it. Conducting qualitative studies on this subject can be difficult and this study along with many others struggled with recruitment. Women were often reluctant to discuss urinary symptoms, which has resulted in a small body of literature regarding women's experiences of them in the postnatal period.

Control was a major issue for the women in this study; if the problem could be controlled by whatever means without seeking help this was often preferred, and this was also identified in the literature (Peake et al 1999, Mason et al 1999a, Ashworth and Hagan 1993). From the findings one woman was identified who had quite debilitating symptoms of urinary leakage which had begun after her first delivery several years previously. Furthermore other researchers identified similar responses of accepting the symptoms as normal and trying to control and hide it rather than seek help (Li et al 2007, Peake et al 1999). In addition the findings revealed that there was concern that it would worsen and be more difficult to cope with and several of the women interviewed also had concerns about going back to work. It was perceived that this would make concealment more difficult. The issues of coping with urinary symptoms, returning to work and undertaking pelvic floor muscle exercises are further explored later in the chapter. From the findings it emerged that the level of measured symptoms did not necessarily predict how the women behaved and only one woman felt she did not want to carry on with her current level of symptoms. This may be because of the amount of bother perceived by the individual woman. As women get older if the symptoms are enduring similar issues may still exist, indicating that the experience of the older woman may not be very different to that of the postnatal woman (Ashworth and Hagan 1993, Peake et al 1999). Two women who were interviewed in this study complained about activity levels which were affected (for example playing with children) and this was also identified by Shapiro et al (2003).

Both the findings and the study by Mason et al (1999a) identified the fact that many of the women accepted the symptoms as part of childbirth. Women at times appear resigned to putting up with the symptoms, because others accept them as normal (Herron-Marx et al 2007). The findings identified several women who thought they would seek help if the symptoms got any worse. In addition several did not like the idea that the symptoms might not

go away or that they might get worse as they aged, while at the same time conveying the impression that they were happy to cope. However, none of the interviewed women who said they would seek help soon had done so thus far, this has been found previously; subjects often claim to be “about to seek help” but never do so (Ashworth and Hagan 1993).

In this study the partners of two women were aware and supportive of their problems although one woman felt her partner should not have to be exposed to it. Only one woman thought that her partner would not be able to cope at all and was determined he would not find out. Conversely Mason et al (1999a) found that some women were worried about partners finding out and took steps to conceal the condition because of this. Partners may also at times be unsympathetic regarding symptoms particularly if they are persistent (Herron-Marx et al 2007).

From the findings it emerged that several women were not keen to be examined after the birth was over, one declared she would lie about symptoms if an examination would be necessary, while three others made comments such as not wanting to be “poked about” anymore. The mother of one woman had undergone investigations which unnerved the daughter; concerns similar to this were also identified in the literature (Strahle and Stainton 2006), in addition women often do find investigations for these symptoms traumatic (Peake et al 1999). This reluctance to undergo further physical examinations after childbirth and how it may affect help-seeking behaviour has not been identified in the postnatal literature so far and may be an area for future research. Two others had found the delivery traumatic and were keen to put the experience behind them as soon as possible and move on. Several other women also expressed concern about what would happen if they went to the hospital, this may affect help-seeking and this will be explored later in this chapter.

In conclusion there are relatively few descriptions of the experience of urinary symptoms in the postnatal period and more research is needed. However, it was evident both from the findings and the literature that women felt guilty about the symptoms and were unsure of the response they would receive. In addition they felt that symptoms should be tolerated as part of childbirth. They were frustrated by the lack of clear guidance at times and wished health professionals would be more proactive on their behalf. Several of the interviewed women remarked that direct questions would have been answered and no-one emphasised the importance of caring for the pelvic floor muscles and this was also identified by others (Herron-Marx et al 2007, Mason et al 1999a). In addition the findings identified the fact that some women were anxious about the possibility of being examined so soon after delivery.

10.4 Normalisation

A key finding from this study was the apparent normalisation of urinary symptoms. Normalisation is defined as the process of making or becoming normal (Oxford Reference Dictionary 1986). In the health context it is a term that has been in use for some time and has become a major force in educational and social policy for those with learning disabilities (Culham and Nind 2003). The process should allow the individual to be able to interact with their world and utilise available services to do so (Barr 1995). Previous work on chronic health conditions by Robinson (1993) described normalisation as a clinically and theoretically pertinent concept that could aid understanding of the management. The desire to lead a normal life as far as possible could be enabled by this process. The symptoms could be in a sense “covered up” this could be by pushing oneself to do things in a normal way even if it was difficult, pacing oneself, not doing too much, restricting who was told about it and doing normal things even if it meant taking measures to conceal, for example wearing pads (Robinson 1993).

Indeed secrecy was often seen as a helpful strategy (Peake et al 1999, Ashworth and Hagan 1993).

Normalisation can be on several levels. For example a study of postnatal depression identified three levels of normalisation (Sword et al 2008). Initially the women did not realise there were problems, attributing symptoms to being tired with a new baby for example. Secondly friends and family again said it was to be expected which made the women anxious and unsure about seeking help and lastly health professionals were casual in approach; with comments such as; take more rest, get the family to help etc, which further disempowered the women's help-seeking desires. There are clear parallels here with postnatal urinary incontinence. The attitude of others towards urinary symptoms was a powerful negative influence and the findings revealed that several women mentioned relatives who spoke of symptoms as inevitable and untreatable, this was also identified by others (Herron-Marx et al 2007). In addition the increasing availability and advertisement of over-the-counter continence products reinforces the normalisation process with urinary symptoms seen as either a normal part of ageing or consequence of childbirth (Bush et al 2001). If women are discouraged from seeking help by the normalisation process other ways of approaching the issue are needed. The remainder of this section will look at the choices women may make in these circumstances, which includes coping strategies adopted by women of all ages, coping with daily life and in particular going back to work and the constraints that may be encountered. From the findings it is evident that normalisation is a powerful concept, in particular the influence of friends and family strongly encourages normalisation. Lastly how women perceive the future was explored, including effectiveness of treatments, particularly in the long term, the influence of friends and relatives, and perceptions of normality as the women age.

Health professionals at times gave the impression to the women that certain symptoms were normal or trivial after pregnancy (Herron-Marx et al 2007, Mason et al 1999a), and this was confirmed by several women from the findings. Many women considered symptoms not serious enough to warrant seeking help and often decided they were a normal sequel of pregnancy and delivery (Herron-Marx et al 2007, Li et al 2007, Peake et al 1999) or a new version of normal (Strahle and Stainton 2006) and several women interviewed for this study confirmed this attitude. Perception of seriousness varied, two of the interviewed women from the findings said it was not serious enough to wear pads, while in contrast others found pads an inconvenience and an embarrassment. Older women in nursing homes with urinary incontinence were viewed as more serious by the women in this study and in addition other researchers identified comments on this subject also including viewing serious incontinence as a condition related solely to old age (Li et al 2007). In addition the sometimes transient nature of urinary incontinence as the woman ages (for example at the menopause) may affect how women view the symptoms. Remission rates vary from 6% (Samuelsson et al 1997) to 28% (Moller et al 2000). Recognised risk factors identified in chapter 1 such as obesity and smoking may be corrected over time and pelvic floor muscle exercises may also be undertaken sporadically. Women may also develop new pelvic floor dysfunction later in life as a result of childbirth; this is due to the fact that following delivery the tissue remodelling process may result in tissue with a weaker biological structure causing symptoms as the woman ages (Monga 2002).

Women with urinary incontinence may also fare better if help and support was readily available; the findings revealed that the women desired help from health professionals. In addition attendance at a purpose-designed clinic can sometimes be normalising, an antenatal clinic for teenage mothers was successful because the teenagers felt they were all the same and would

not be looked down on by the older mothers and self esteem was greatly improved (Gee and Lackey 2002).

10.4.1 *Getting back to normal*

After delivery the new mother has to adjust, either to being a first time mother or to an increased family. Several issues may hinder this including for example; depression, (Sword et al 2008), perineal pain, (Williams et al 2007), and tiredness (McQueen and Mander 2003), and urinary symptoms. From the findings it appeared that for several women personal health was only important insofar as being able to care for the baby and later to enable them to return to work. For a woman health experiences are pivotal to the other experiences which include those in her social, economic, political and cultural world (Raftos et al 1997) and women do have health concerns about returning to normal particularly losing added weight and coping with issues such as breast feeding (Viau et al 2002), although from the findings it appeared in the early postnatal stage the main concern was being able to care for the baby and managing the return to work. The findings identified symptoms including perineal pain and tiredness among the interviewed women; however, the only personal symptom women voiced at postnatal groups was tiredness.

So far this chapter has identified both in the literature and the findings that women are at times resigned to having urinary symptoms, are encouraged to view them as normal after a baby by friends, family and health professionals and often adopt coping strategies rather than seeking help. Despite this symptoms in older relatives were often viewed with dismay. The findings identified four instances of women with female relatives, three were their own mothers and one a grandmother who were all incontinent and for various chronic health reasons were no longer able to manage the condition themselves. Several women in this study stated they did not want

to be like that and in particular mentioned the smell that often accompanied an older incontinent person; other researchers have identified this also (Hagglund et al 2003, Shaw et al 2001). However, women may see symptoms as more acceptable in older women viewing it as a normal part of the ageing process (Shaw et al 2008, Shaw et al 2001, Peake et al 1999, Mitteness and Barker 1995). This is often reinforced by health professionals (O'Connell et al 2002, Mason et al 2001, Mitteness and Barker 1995).

One of the factors preventing women coming forward for help and returning to normal is that they are unaware of the treatment options available. Nine women in this study had no clear idea what treatment might be offered at the hospital. Suggestions about what might be involved varied with one woman thinking that a toning machine of some sort would be used, two that the patient would need to see a specialist, and three others thinking they would be able to get help at the general practitioners surgery. Other research has also found that information regarding available help is often limited or not discussed at all (O'Connell et al 2002, Mason et al 2001, Peake et al 1999). It may be that giving women more detailed information about treatments and prevalence may allay some of the obvious fears about the future and encourage them to seek help. The next section looks at the coping strategies employed by the women in this study.

10.4.2 *Coping strategies*

The findings evidenced that women had adopted a variety of coping strategies to manage urinary symptoms. This may be because they were too embarrassed to seek help or were not offered practical help by health professionals (Hannestad et al 2002). It is apparent from the literature that the use of pads and panty liners was a widespread coping strategy (Rassin et al 2007, Herron-Marx et al 2007, Lose 2005, Peake and Manderson 2003, O'Connell et al 2002, Wilkinson 2001, Anders 2000, Mason et al 1999, Engberg et al 1995, Ashworth and Hagan

1993) and this was also evident in the findings. Two women were using pads or panty-liners regularly and a further four were using them occasionally when they might be more at risk of leaking; for example when away from home for some time.

Another way in which women coped was to be careful about where they would go and, in particular, there was a need to know a toilet was nearby. Indeed Ashworth and Hagan (1993) describe some women as existing in a constant state of avoiding danger, with forward planning of trips and activities. Although none of the interviewed women thought any symptoms would restrict visits several mentioned a fear of having an obvious leak in public, and said that they would have to prepare for any trip.

In the literature more frequent toileting was also common, with women visiting every toilet they passed, looking for toilets all the time and scheduling times to go to the toilet (Rassin et al 2007, Li et al 2007, Herron-Marx et al 2007, Lose 2005, Peake and Manderson 2003, O'Connell et al 2002, Wilkinson et al 2001, Mason et al 1999, Engberg et al 1995, Ashworth and Hagan 1993). For some women life revolved around knowing where toilets were, particularly if urgency was also experienced (Herron-Marx et al 2007). Sometimes women experienced anxiety if they did not know the location of the nearest toilet (Peake and Manderson 2003), or panic attacks if there was not one nearby (Herron-Marx et al 2007). In addition women at times were anxious about going out (Rassin et al 2007) and might avoid it altogether particularly if a long trip was planned (Lose 2005, Wilkinson 2001).

General activities such as sport and playing with children had a much bigger impact however, and both the continence nurses from the focus groups noted that women often increased coping strategies when starting back at the gym for example as symptoms also increased and

may even seek help at this stage. Often women avoided certain activities such as running, jumping and swimming (Lose 2005, O'Connell et al 2002, Mason et al 1999, Engberg et al 1995, Ashworth and Hagan 1993) and this was also a concern of several interviewed women from the findings, one thought she might not be able to play football with the children while another felt taking the family to the swimming pool was not possible. However, one of the interviewed women was unconcerned as she was now a mother of two children and therefore her perception was that she couldn't go anywhere other than to take her older child to school anyway. Interestingly only two studies mentioned the practice of pelvic floor muscle exercises as a coping strategy (O'Connell et al 2002, Engberg et al 1995) although from the findings several interviewed women described being prompted to undertake the exercises after experiencing a leak, and found them effective. However, the exercises were mostly discontinued after the episode had settled.

Although there was less research that looked specifically at the postnatal period (Herron-Marx et al 2006, Strahle and Stainton 2006, O'Connell et al 2002, Mason et al 1999), it is clear from the other studies which encompass women of all ages that coping strategies were very similar across the age span. Several of the interviewed women described older relatives who were also using pads, frequent toileting and avoidance of certain activities. However, it appears that as time goes by women add further strategies, which may relate to changes in lifestyle or the symptoms may be more severe, necessitating extra strategies. Strategies such as carrying spare underwear or wearing more than one pair (Peake and Manderson 2003), wearing dark coloured, loose and easily washed clothing (Li et al 2007, Ashworth and Hagan 1993), changing clothes frequently (Wilkinson 2001, Engberg et al 1995, Ashworth and Hagan 1993) and increased hygiene measures such as bathing (Engberg et al 1995), or use of vaginal deodorants (Ashworth and Hagan 1993) were also adopted. Incontinence cannot always be

cured but may need to be contained using coping strategies such as pads or appliances as described in an updated paradigm and this can facilitate the optimisation of comfort, self-respect and quality of life (Fonda and Abrams 2006).

10.4.3 *Returning to work*

For women with urinary incontinence returning to work can create new anxieties for women and from the findings several women had concerns here. Women still utilise coping strategies such as pads, the restriction of fluids and the use of voiding schedules has been noted both in the findings and the literature (Fitzgerald et al 2000). However, the type of work undertaken could have a bearing on how the women chose to manage the symptoms. A study comparing academics with workers in a pottery factory identified a higher prevalence of urinary incontinence in the pottery workers (29%) than in the academics (21%) (Palmer and Fitzgerald 2002). The women in the pottery were more physically active, but worked shifts and had less opportunity to visit the toilet. These women also had to work in high temperatures at times which could cause some dehydration and that coupled with restricting fluids meant irritative symptoms were more likely. There were differences in likely coping strategies; the pottery workers were more likely to employ pads (77.8% versus 58.3%, $p = 0.003$) and the academics were more likely to employ voiding schedules (24% versus 8%, $p = 0.008$). This illustrates how different occupations may have different effects on the management of urinary symptoms. The findings identified clear concerns with regard to returning to work particularly with certain occupations. Three of the interviewed women were teachers and would have the same issues with finding it difficult to leave the room during a class, while another worked in a big office and felt colleagues would notice if she had to go to the toilet too often. Conversely another woman worked in a bank and often had to leave her desk as part of her work and therefore thought it would be easy to visit the toilet regularly without being noticed. The main concern seemed to

be that others might find out about the symptoms rather than the ability to deal with them. Another interviewed woman who was not planning to return to work in the near future was terrified of the thought of leaking before she managed to get to the toilet if she did return to work. Improvement in communication may allow women to understand the symptoms and facilitate help-seeking and the next section explores this.

10.5 Communication

Communication skills should help to improve the patient experience and may be verbal or non-verbal and include listening, empathy, self-disclosure, and patient management (Chant et al 2002). It is a two way process and may be on more than one level, the external perception of the message delivered may be very different to the internal message received, and health professionals and relatives may not be aware of the true message delivered or inferred by the words chosen. In addition internal messages received may not always be spoken (Chant et al 2002). Health professionals are aware that they lack communication skills (McCabe 2004, Jarrett and Payne 1995), and need to improve them (Pooley et al 2001), but respond well to short courses on the subject (McCabe 2004, Bowles et al 2001). This is also seen as empowering by nurses who may find communication a potentially stressful and difficult aspect of nursing (Jarrett and Payne 1995). Facilitation of good communication is increased when there is also good knowledge of the relevant area (Chant et al 2002).

From the findings it was evident that the importance of the pelvic floor muscle exercises had not been emphasised to most of the women. In addition, it was evident from the findings that poor communication was often a factor in women's reactions to symptoms, with several of the women having no recall of being asked about urinary symptoms. In addition with regard to urinary retention few knew the reason for emptying the bladder frequently during labour and

only three women from the findings remembered being asked by the midwife if they had emptied their bladder. Other researchers also identified this (Herron-Marx et al 2007, Strahle and Stainton 2006). However, as has been previously stated women may not remember being asked due to the stress of being in labour.

Patients may respond better to different approaches or venues, For example, a study of comparing conventional care in a general practitioner's surgery versus home care revealed that the home consultations were much more relaxed and women felt much more able to ask questions (McCourt 2006). In another study looking at postnatal home visits by the midwife a different scenario was identified (Lomax and Casey 1998); the midwife appeared powerful and was confident enough to give instructions to other people in the house. This may be welcomed by the new mother. However, there were many interruptions during the consultation, other children and people at the door for example. This may have an effect on the midwife's capacity to remember other details such as pelvic floor muscle exercises over compulsory checks such as the perineum and breast feeding. A study of health visitor's home visits in the postnatal period also demonstrated a very practitioner initiated and led consultation with little evidence of client participation, even though some of the clients were already experienced mothers (Kendall 1993). It would seem from this that the approach, the person and the venue may all be factors in a good consultation. Unfortunately, pressure of work in health care may mean that organisations favour a task centred approach, this can be detrimental to patient/health care professional relationships (Chant et al 2002, McCabe 2004), and this is certainly true of primary care, appointments are generally ten minutes only, and extra skills are needed to communicate effectively with the patient within a limited time span to ensure the patient does not feel less important than the task (Chant et al 2002).

All participants in the focus groups for this study realised communication was extremely important, and felt there was a need for improvement. Interestingly although several practitioners identified the need to ask specific questions of the women regarding urinary symptoms, this was often not the experience of the women. However, the participants in the focus groups may not be typical as they had volunteered to be in the study and may be more aware of the issues. This may precipitate problems in sensitive subjects such as urinary incontinence. Although the continence nurse has chosen that speciality and has appropriate skills and knowledge it is the health professionals in primary care who will need to refer the patient and therefore also need good communication skills. Raising awareness among other health professionals rather than just those interested in the subject may be necessary. The findings revealed that women wanted to be asked specific questions about continence in order to bring the subject up; they found it difficult to initiate the conversation and other have identified this issue also (Herron-Marx et al 2007, Mason et al 2001, Salmon 1999, Cohen et al 1999). In a qualitative study 42 symptomatic women who were 8 weeks postnatal and 15 symptomatic women who were one year postnatal were interviewed (Mason et al 1999a). The most important area for the women was the interaction with health professionals. In concordance with the findings some women were too embarrassed to mention it to a health care professional and thought the subject should have been broached anyway, which would have made it easier to vocalise. Another study also identified this in addition to revealing that many women had the impression that midwives did not want to talk about the pelvic floor (Strahle and Stainton 2006).

The findings revealed that even at antenatal classes some women expressed anxiety at raising a sensitive subject as they did not know the other class members well. One interviewed woman who had sought help was told it was to be expected and sent away, it is not uncommon for

health professionals to be dismissive of women with urinary symptoms and this has a marked effect on further help-seeking (Herron-Marx et al 2007).

Another issue regarding communication is the use of medical language or jargon. As a clinician the researcher was aware that the term “waterworks” was often used by health professionals when referring to any bladder symptoms. What this might mean to either party was unknown and therefore a question to explore participants understanding of the term was included in the interview schedule. Four interviewed women volunteered a suggestion; two thought urine infections, two described stress incontinence and the remainder did not know. The worrying fact was that from the findings nearly all the women said they would just say everything was fine rather than ask what exactly was meant by the term. While most of the women interviewed knew about the presence of the pelvic floor muscles few could explain their function and not all connected the muscles with stress incontinence. There may well be other occasions where misinterpretation or misunderstanding leads to inaction. It has been suggested that nurses in particular exert power over patients in a negative way by use of language which can be controlling, using closed questions, or patronising, using over-familiar terms or overcomplicated language as a result of having little power themselves in the medical hierarchy (Hewison 1995). This again can have the effect of stopping patients questioning care as often they fear ridicule because of a patronising attitude. Although over 40 years old now the work of Menzies (1961) remains relevant today; nurses have their own fears and anxieties about issues of care and often employ defence mechanisms to avoid a difficult subject, such as over-medicalised language when the subject is unfamiliar or a distant response to a subject they find emotionally upsetting.

At times incontinence is treated as humorous (Mason et al 1999, Peake et al 1999) and from the findings it was clear that relatives when telling the women what to expect would laugh at the same time. This may be again because it can be a difficult topic for some and the researcher may also be unconsciously responsible for asking the questions in a way that invites laughter to deal with the difficult topic (Braun 1999). Indeed when interviewing the women for this study they would often laugh when talking about the effects of symptoms as would the interviewer, there is clearly a complex interaction here with humour being used to deal with a difficult topic.

Relationships and communication can be adversely affected by the attitudes of health professionals upon disclosure of symptoms such as urinary incontinence. An attitude is defined as “a way of thinking and behaving” (Oxford Reference Dictionary 1986), and may therefore be either positive or negative. Attitudes towards urinary incontinence may be complex involving interaction of feelings, beliefs and behaviour, and there may be a negative correlation between actions and words (Vinsnes et al 2001). In essence when asked, health professionals may advocate one course of action but do something completely different when dealing with the clinical situation. The relationship between attitude, knowledge and beliefs and the consequent effect on practice is important (Vinsnes et al 2001). However, no health professionals reported poor attitudes towards patients in their work or life outside work and in addition no interviewed woman had experienced this either, but as noted previously the health professionals may not be a representative group. One of the continence nurses made the point that just offering containment to patients with incontinence without proper assessment could be considered negligent, but was often selected as it was easier and in the short term also satisfied the patient. Difficulties with communication may hamper empowerment for the women and this is explored now.

10.6 Empowerment

Chapter 9 has looked in detail at empowerment and the following definition was provided; to enable or to authorise, to permit, to give licence or choice to (Oxford Reference Dictionary 1986). The difficulties of applying a definition to health and social care were discussed (Tones 1998, Rodwell 1996). In addition it was suggested that a helping partnership may aid empowerment (Rodwell 1996). Respecting self and others aids mutual decision-making, giving freedom to make choices and accept responsibility (Rodwell 1996). However, freedom of choice is influenced by barriers in the environment which may be cultural, physical or socio-economic (Tones 1998). In this instance the cultural is represented by both peers and health professionals alluding to symptoms as normal and a prevailing attitude that “women just get on with it”. The physical barriers include not knowing what is normal and having other more pressing issues to worry about such as breasts (for feeding), and sore perineum (sitting to feed baby). Socio-economic barriers include at times insufficient education about urinary symptoms and treatment of them, staffing levels to provide adequate care and the educational attainment of the women which may affect understanding of any information given and further information seeking.

Chapter 9 alluded to powerlessness and several authors have discussed the feeling of powerlessness when control is completely lost, the effect this has on quality of life (Hagglund and Ahlstrom 2007, Kar et al 1999) and the anxiety and stress experienced by individuals when having to deal with new changes to life or self image (Aujolat et al 2007). In addition women may also experience a feeling of powerlessness if a help-seeking encounter is unsatisfactory (Haaglund and Ahlstrom 2007).

Empowerment might imply a degree of control, however, in medicine the issue of power or enablement can be problematic, and there are times where decisions outside the scope of the knowledge of the patient have to be taken. In addition this has connotations for the nurse/midwife also who may be empowered within her knowledge base but medical intervention may usurp her authority. However, if both parties are aware of the need for this and understand the reasons for it they are not disempowered. In addition it has been suggested that health professionals first need to be personally empowered to aid empowerment in others (Gordon 1998, Latter 1998), and a key component of empowerment is communication (Gordon 1998). Gordon (1998) also comments on the influence of others, including health professionals and friends and family is an important part of empowerment, and this was a key finding in this study also, although not always a positive one. The process of transferring power where possible can however, facilitate the development of self-esteem and can be energising and may enable change by giving hope or direction (Rodwell 1996). It can be seen from this that women can therefore be empowered even though they are not able to be in control if given the right education. However, women's educational needs also vary tremendously and individual assessments may be necessary to ensure women have the knowledge they require to enable empowerment (Stamler 1998). In addition, those suffering from chronic conditions may find that the interactions with health professionals do not enable empowerment. This may be due to the fact that, although it may be stated that participation in decision-making will be facilitated, experiential knowledge is often given no importance by the health professional and helpful information may not be provided (Paterson 2001).

Understanding and knowledge can therefore be seen as a way to increase empowerment and facilitate involvement in care as far as is medically possible, thereby giving increased satisfaction to the woman. There are possible areas where empowerment may be enabled for

women with enduring urinary symptoms. Firstly help-seeking behaviours are explored, followed by a discussion of the influence of friends and family, which may be positive or negative. Understanding and benefiting from pelvic floor muscle exercises and the subsequent influence on performance is described. The information sources utilised by women are examined. Possibilities for improving quality of life and overcoming anxiety and depression are discussed. Finally the possible influences of the Expert Patient Programme and patient participation in designing health services and research to identify better approaches for women are investigated.

10.6.1 *Help-seeking behaviours*

From the findings it was evident that a significant barrier to help-seeking was the fact that urinary symptoms were largely communicated as being normal, thus indicating help should not be needed, making it hard for women who did want help to say so. The literature regarding help-seeking in the postpartum period was extremely limited. Only three papers were found that dealt directly with postnatal help-seeking behaviour, two of which were undertaken in Australia. Therefore, some literature regarding help-seeking in older women was also reviewed.

From the findings it emerged that only one woman had sought any help for urinary symptoms. However, this woman received a poor response which dissuaded her from further help-seeking. Two others thought they should see a health professional but had not done so, because they had felt too embarrassed to raise the subject. This reluctance to discuss urinary symptoms has also been identified by others (Mason 1999a, 2001, Ashworth and Hagan 1993).

In a study of 224 women, sent a self-administered questionnaire eighteen months after delivery utilising self-administered questionnaires, 50% had had some accidental loss of urine

(O'Connell et al 2002). The women thought the reasons for the symptoms included childbirth, not having done pelvic floor muscle exercises and activities such as sneezing and coughing. The impact on lifestyle resulted in reduced activity particularly in relation to travelling or sports and caused embarrassment, anxiety and frustration. Interestingly in the findings the women who were at an earlier stage postnatally (approximately twelve weeks) expressed more concern about the effects when returning to work rather than other activities. While information about pelvic floor muscle exercises had been received by most women few had information on urinary incontinence and they often did not realise the relationship between the exercises and incontinence, and neither did some health professionals (O'Connell et al 2002). This lack of information about the role of pelvic floor muscle exercises in preventing urinary symptoms was also commented on in the findings for this study. Of the two women who attended NCT (National Childbirth Trust) classes one thought the session had been unclear on the benefits of pelvic floor muscle exercises with no clear explanation on their relation to urinary symptoms. The one UK study describing women's reluctance to seek help for urinary symptoms also found little information had been received regarding urinary symptoms (Mason et al 2001). An Australian study commented on the lack of evidence based guidance for midwives to draw on when advising women regarding urinary symptoms (Strahle and Stainton 2006) and another Australian study revealed that midwives often did not assess women's continence status in the peripartum period (Butterfield et al 2007). Silence was an issue, women often felt neither woman nor health professional were willing to discuss urinary symptoms which made the women embarrassed and fearful of mentioning them (Strahle and Stainton 2006). Many accepted the symptoms as the "new normal" for them, but others were distressed by body changes. A few women encountered bad experiences with health professionals either giving poor advice or delivering lectures when exercises had not been done.

Although research on postnatal women is limited there is more research available that concerns the help-seeking behaviours of older women. A framework has been designed that mimic the process women adopt when deciding whether to seek help or not (Shaw et al 2008). It is suggested that women will first appraise personal status to decide if the symptoms are valid and serious enough to seek help by relating them to previous experience or that of others and try to identify a cause. The perceived costs and benefits determine whether or not the individual will seek help (Shaw et al 2008). For example women will weigh up the cost of undergoing surgery against the benefit of reducing the amount of bother or effect on quality of life the symptoms cause and negative results following previous help-seeking will also exert an influence (Shaw et al 2008). Reported help-seeking behaviour is variable, ranging from as little as 11% (Lepire and Hatem 2007) to 50% (Teunissen et al 2005). Women may eventually seek help for various reasons, such as an increase in severity (Shaw et al 2008, Lepire and Hatem 2007, Teunissen et al 2005, Kinchen et al 2003, Hagglund et al 2003, Hannestad et al 2002, Brittain et al 2001, Roe et al 1999) or an increased amount of bother or impact on quality of life (Shaw et al 2008, Lepire and Hatem 2007, Teunissen et al 2005, O'Donnell et al 2005, Kinchen et al 2003, Hannestad et al 2002, Brittain et al 2001, Shaw et al 2001). The length of time the symptoms had been experienced also increased help-seeking (Kinchen et al 2003, Hannestad et al 2002, Brittain et al 2001), as did increasing age (Hannestad et al 2002, Brittain et al 2001). Some researchers have identified that a lack of knowledge of the cause of incontinence and available treatments (Teunissen et al 2005, Shaw et al 2001, Roe et al 1999), may affect help-seeking. When information was available via local campaigns help-seeking was increased (Brittain et al 2001).

Women may view incontinence as a normal part of ageing (Shaw et al 2008, Shaw et al 2001), a normal consequence of childbirth (Lepire and Hatem 2007), or a minor problem that does not

require treatment (Hagglund et al 2003). Those who had had symptoms for many years sometimes assumed it was normal for them (Shaw et al 2008, Shaw et al 2001). Embarrassment was not always a major factor in delaying help-seeking (Teunissen et al 2005), and in fact finding the symptoms embarrassing was sometimes a trigger for help-seeking (Brittain et al 2001, Hagglund et al 2003). One study found that women with urge incontinence were more likely to seek help because of the increased difficulties of managing it (O'Donnell 2005). It would appear from the information available that many reasons may be responsible for the initiation of help-seeking and it is interesting to note that health campaigns, which increase knowledge, also increased help-seeking (Brittain et al 2001). It may be possible that increased enquiry from health professionals would empower women to question previous negative attitudes. Most treatment is accessed initially in primary care and referral on to other services may be poor (Shaw et al 2006), it would seem that this is an area where improvements could be made and possible strategies for primary care will be discussed later in this chapter.

10.6.2 *Quality of life*

Quality of life is determined by an individual's perceptions of several factors including social, sexual, mental, physical and general well-being and is influenced by personal beliefs and goals and cultural values (Papanicolaou et al 2005). Urinary symptoms particularly those that are enduring, may have a significant effect on quality of life although the level of impact seemed to vary between women. For example, of the two women scoring the highest symptom level one scored highest for negative effect on quality of life whereas the second woman scored midway on the scale. This may be due to the fact that the symptoms gave the second woman less bother than the first woman. Although the questionnaire used in this study included only one quality of life question it had performed well when used with older women and men (Wagg et al

2007a, Desgrandchamps 1996) and the original version, designed to be used with men (Barry et al 1992) correlated significantly with quality of life [$r = 0.49$, $p = < 0.001$] (Vela-Navarrete et al 2000).

Some papers that measured quality of life were reviewed, to attempt to identify whether reduced quality of life was a good predictor of help-seeking behaviour. Several well validated condition-specific measurement tools exist for this purpose. A review assessed and graded symptom and quality of life questionnaires (Naughton et al 2004) and identified the following as grade A (highly recommended); Kings Health Questionnaire (KHQ, Kelleher et al 1997), Incontinence Impact Questionnaire (IIQ, (Shumaker et al 1994) including also the seven question version), and Quality of Life in Persons with Urinary Incontinence questionnaire (I-QoL, Wagner et al 1996). There are a number of studies published that utilised at least one of the highly recommended tools. The I-QoL was used in two studies, one sampled women at six months postnatal and revealed that the more severe the incontinence the greater the negative effect on quality of life (Hatem et al 2005). This was also identified by the second study of women with urinary symptoms in four European countries which found that the greater the severity the more bother patients reported, but this did not necessarily lead to increased help-seeking (Papanicolaou et al 2005). Two studies used the IIQ, one studied women reporting overactive bladder symptoms during and after pregnancy revealing a negative effect on quality of life both during and after pregnancy if the women also experienced leakage (van Brummen et al 2005). The second measured quality of life after bladder training and identified a positive effect on quality of life after the training (Wyman et al 1997). The KHQ was used to measure quality of life in women at 34 weeks gestation and 12 weeks postnatal, a negative effect on quality of life was shown, particularly in the postnatal period and if more than one symptom was present (Dolan et al 2004). Only urge incontinence was associated with a negative effect on

quality of life and an increase in help-seeking behaviour in a study of women of all ages (Hagglund et al 2003). However, this study used the SF-36 (Brazier et al 1992) which is a general measure and has not been shown to be reliable with stress incontinence (Naughton et al 2004). A study in France identified that greater symptom severity had a negative effect on quality of life particularly with increased age and duration of symptoms (Gasquet et al 2006). It seems, therefore, that although urinary symptoms have been shown to have an effect on quality of life it is less clear whether this is associated with help-seeking behaviour. Only two studies were found which addressed this and there was discrepancy in their findings with one reporting that reduced quality of life was associated with an increase in help-seeking (Hagglund et al 2003) and one that it was not (Papanicolaou et al 2005).

Anxiety and depression may result for some women with enduring urinary symptoms. Depressive symptoms were three times more likely in women with urinary incontinence than in continent women and the authors suggested that depression may be further increased by social isolation caused by the symptoms (Meade-D'Alisera et al 2001). In addition women with incontinence rated their general health as worse than continent women and suffered more chronic conditions and lowered physical functioning (Jamieson et al 2007).

10.6.3 *The influence of others*

As has been discussed earlier the influence of others particularly family and friends emerged strongly from the findings. Comments such as “you wait till you’ve had that baby” and “you won’t be able to laugh like that after the baby” may reinforce the impression of inevitability, normalise the problem and further reduce help-seeking. While it is clear friends and family do encourage normalisation the impact of this issue has not been fully explored in the literature. In particular, the tendency to laugh and make taunting comments when discussing a potentially

embarrassing issue, and it may be that the friends were conveying the message that laughter was an allowable way of dealing with the effects of the symptoms. It may also be a defence mechanism to avoid confronting a difficult issue. However, two women from the findings reported that mother or mother-in-law had asked about pelvic floor muscle exercises, and furthermore had been helpful and in particular encouraged help-seeking. One of these women was a nurse, and from the findings it was evident that women thought relatives who were nurses would give helpful advice and encourage help-seeking, although both the findings and others (Herron-Marx et al 2007, Mason et al 1999a) at times found this to be incorrect in reality. The literature needs to be expanded in this area and it may be that increased information giving by health professionals would facilitate a better experience for women with urinary symptoms.

10.6.4 *Knowledge of pelvic floor muscle exercises*

Understanding the reasons for undertaking pelvic floor muscle exercises and in particular learning to undertake them effectively could be empowering for the women. Pelvic floor muscle exercises were at times used as a coping strategy and from the findings it emerged that one woman had done so. Symptoms often triggered performance of exercises for a short while. One interviewee also spoke of a friend at postnatal group who had problems and then started the exercises until it improved and then stopped again. Although neither woman continued the exercises on a permanent basis there had been good effect and the symptoms subsided at least for a while.

The information received may have an effect on performance of the exercise. Most women interviewed for this study were at least aware that they should be doing pelvic floor muscle exercises, however, few had had good instruction. In addition although most women intended to do the exercises in the postnatal period they did not always realise the exercises should be

carried out indefinitely (Chiarelli et al 2003). Copies of the usual leaflet given to the women locally were obtained from the Obstetric Unit. Clearly photocopied many times the pelvic floor exercise information gave instruction only for slow twitch muscle fibres and not fast twitch muscle fibres. The local continence nurse, who was part of the focus group, suggested that both should be undertaken when women had regained some strength in the pelvic floor. The leaflet was written by the Physiotherapy Department and there were political difficulties here as the continence service was not part of the acute services and therefore was not involved with designing the postnatal leaflet. Information regarding pelvic floor muscle exercise was erratic at times, varying from a short reminder to classes, provided by different health professionals (Mason et al 2001). Written information was often left at the end of the bed, not given personally to the woman. This was also a common occurrence in the findings; pelvic floor muscle exercise instruction was often left with other information and may be missed altogether. The continence nurses in the focus groups confirmed that immediately after delivery the pelvic floor is weak and may be numb and performance may be inefficient. Several women interviewed for this study said they could not feel anything happening when they attempted the exercises which discouraged them, in addition perineal pain made it even more difficult. However, none of the women interviewed had been informed of the possibility that performance of the exercises might not be possible in the early days. Better information would have encouraged the women to persevere; this point was made by one woman from the findings who felt she would have tried harder if they had explained to her.

From the findings it appeared that following delivery, lack of emphasis meant sometimes women were not reminded or encouraged to undertake the pelvic floor muscle exercises and residual symptoms could be overlooked in the limited hand-over process between the midwife and health visitor. Ten of the women interviewed reported that the pelvic floor muscle exercises

were not emphasised and other studies also revealed this (Herron-Marx et al 2007, Mason et al 2001). In addition, peers were often not doing them either and the women may therefore assume this is normal and adopt the same strategy. However, as discussed from the findings and the literature it is clear from the guilt later expressed that women were aware they should be doing the exercises and feared rejection if this was not so (Herron-Marx et al 2007, Mason et al 2001, Peake et al 1999, Mason et al 1999a, Ashworth and Hagan 1993). Also as the information did not stress the importance of doing the exercises women often did not relate the exercises to stress urinary incontinence in the findings or the study by Mason et al (2001).

These factors could at times mean that women did not perform the exercises. The findings identified that only four women had performed exercises consistently and none were clear on how many repetitions were advised or the frequency. This may be partly due to the fact that antenatal classes for the women did not always contain information on pelvic floor muscle exercises and as previously mentioned women often only attended the classes in the first pregnancy and therefore did not receive any reminders in subsequent pregnancies. It has been suggested that, the exercises may be better taught in the antenatal period when the mother is not in pain, can feel the pelvic floor and is less busy (Parker 2001), but antenatal information did not always persuade women undertake the exercises and in addition no relationship was found between performance of the exercises and stress urinary incontinence (Whitford et al 2007). However, women who do not attend classes may rely on outdated information, previously pelvic floor muscle exercises involved stopping the flow of urine and this is now known to increase the risk of urine infections (Joanna Briggs Institute 2005). From the findings it was evident that one woman had been doing this until a younger friend advised of the change.

The leaflet that was provided postnatally did suggest the number of repetitions, but by this time the women were often focussed on the baby. Few guidelines exist on the correct teaching of pelvic floor muscle exercises specifically for postnatal women (Mason 2001), however, it is recommended that pelvic floor muscle exercises should be taught in the antenatal period (NICE 2006a) and also in the postnatal period (NICE 2006) and there is no reason why most women should not be able to follow the clearly prescribed treatment for stress urinary incontinence once pelvic floor muscle strength begins to return (NICE 2006a).

From the findings it was evident that the women's practice of pelvic floor muscle exercises was questionable at times for a variety of reasons, several women from the findings reported not remembering or perceiving they did not have enough time. This was also identified by Mason et al (2001), women struggled to remember to do the exercises once home and few performed the exercises at the level required to be effective. However, women did feel unsure if the exercises were being performed correctly (Herron-Marx et al 2007, Mason 2000) and this included three interviewed women.

In conclusion it may be that women receive inconsistent and unstructured information from health professional at times. There is at times little emphasis of the importance of continuing the exercises and instruction may not be adequate. Friends and relatives may unknowingly encourage acceptance of symptoms as normal. As a consequence women may be unsure of the benefits of pelvic floor muscle exercises and therefore disinclined to undertake them regularly.

10.6.5 *Other Information sources for women*

It emerged from this study that women may utilise a range of sources other than health professionals to obtain information about postnatal physical symptoms. Several of the women interviewed had bought other books on pregnancy, accessed television programmes or video recordings or asked friends and family. It was interesting to note that none of the women spoke about the Pregnancy Book (DH 2007b) or Emma's Diary (Royal College of General Practitioners 2007) as a primary source of information about the pelvic floor and often stated they could not remember the location of the leaflets they had been given on discharge from the hospital. Reasons for this are unclear, perhaps the information was given to them at a time when they were not interested or possibly the way it was delivered to them (e.g. left at the end of the bed) did not encourage them to look at it or keep it.

All first time mothers are given a copy of The Pregnancy Book (DH 2007b) at the booking visit. The book was written with advice from various organisations such as The Royal College of Midwives and The Royal College of Obstetricians and Gynaecologists. It is comprehensive, covering the whole of pregnancy, delivery and the postnatal period. In the antenatal section there is clear instruction on pelvic floor muscle exercises. The postnatal check section directs women to mention urinary or faecal incontinence at the post natal visit. However, in the postnatal chapter it is suggested that the pelvic floor should be "squeezed" and gently released ten times. Further progression as the pelvic floor regains strength is not discussed. Clear instruction is vital; although the long term effect of pelvic floor muscle exercises is uncertain the short term effect is proven (NICE 2006a, Wilson et al 2005, Wagg and Bunn 2007).

Emma's Diary (Royal College of General Practitioners 2007) is given to all mothers and this also discusses urinary symptoms and pelvic floor muscle exercises, but briefly and with no

instructions regarding frequency or how to do them. Although there are no references in these official publications the sources are reputable, e.g. Royal College of General Practitioners. Given that none of the women interviewed made comments about the official books it might be prudent to research this issue to determine whether there is a problem with the publications. It must be noted however, that the women interviewed were asked only where they would get information regarding urinary symptoms.

Many other books are available to purchase or borrow from libraries and the media including television, radio and the internet can provide information. Several of the women interviewed cited television as a source of information, speaking of advertisements for “Tena” and “Poisie” pads, and women’s chat programmes. The product information does not always direct women to seek help, so this may not always be beneficial, and information on chat programmes may not originate from an expert in the area. The findings identified that information gleaned in this way seemed to generate more anxiety, and also perpetuate the process of normalisation as the women perceived the advertisements to portray an inevitable pathway to wearing pads constantly. Television chat shows were seen as interesting but had not encouraged any of the interviewed women to seek help.

None of the interviewed women had accessed the internet for information on urinary symptoms or pelvic floor muscle exercises although there is some evidence that this is an increasing trend for mothers in the United Kingdom (Soltani and Dickinson 2005). In the United States this route plus telephone advice lines are increasingly used for help with health advice (Barbo 2002, Viau et al 2002). However, the quality of any media information particularly on the internet cannot always be assured. If this information is viewed in conjunction with balanced information from a health professional no harm may result. However, some women preferred medically oriented

paper resources; the findings revealed one woman relied on a general family health book for all medical worries about herself or the family. This however, was not a new book and may have contained outdated information. From the findings it transpired one woman planned to telephone NHS Direct if she needed information. This resource is intended more for current illness rather than ongoing symptoms so would not be ideal although hopefully the woman would be redirected. It is clear that there is a lot of information available in the public domain but the quality may be variable. Furthermore women may on occasion choose this avenue instead of or in addition to official literature offered.

However, some women in this study preferred to obtain information from health professionals, particularly nurses who were seen as more approachable, this has been identified by other research also (Rassin et al 2007). Again the interviewees were asked where they would get information about urinary symptoms and pelvic floor muscle exercises only. From the findings it emerged that several of the women did not know where they would get further information and from their reactions it was clear they had not thought about it at all; again perhaps because symptoms were seen as normal no action was expected. Women may access information mainly from books (Whitford et al 2007), friends and family, or health professionals (Soltani and Dickinson 2005). However, they did not always change behaviour as a result of the information (Soltani and Dickinson 2005), even if it was a specially designed leaflet (O'Cathain et al 2002). At times staff may be reluctant to issue detailed information as it may raise expectations thus increasing the workload (O'Cathain et al 2002).

In conclusion it seems therefore that women may rely on a variety of other sources for information. Some of this may at times be inaccurate or outdated or may be misunderstood or misinterpreted. However, this is not always so, an increasing number of informative books are

available and if women can feel empowered to seek clarification from official sources a good experience can result.

10.6.6 *Patient participation*

As discussed in chapter 4 there may be advantages to involving the patient in planning and managing care. There is the potential to improve the experience of help-seeking for women with enduring urinary symptoms. When this research was originally designed emphasis on patient participation in current policy was still emerging. Information exchange is fundamental to achieving patient participation (Entwistle and Watt 2006). However, although several health care decision-making models exist most were designed without patient input and emphasise either the behaviour of health professionals (Elwyn et al 2005) or that of the patient (Charles et al 1997), not both. More integrated study is indicated otherwise decision-making and therefore implementation may be adversely affected (Bugge et al 2006). However, the tendency to omit service users from planning and setting priorities remains and the evidence base needs to be improved in order to facilitate research priorities (Minogue et al 2005). In addition, it is a key part of current government policy to involve patients in the commissioning of care and care-planning, particularly in the community, to facilitate greater choice and control in personal care (DH 2008).

Patient participation may be as simple as patients learning to participate more in a consultation. Physicians increased patient centred communication when dealing with a high participation patient, although this was predominately exploring the disease and illness rather than taking a holistic view of the patient (Cegala and Post 2009). It is suggested that women undertake most decision-making in health care both for themselves and family members (Whitmann-Price 2004). Being able to share in the decision-making process with a health professional is

described as emancipating, women may be oppressed by health practices they encounter and feel unable to make the desired choice. Key attributes of emancipation include empowerment, awareness of social norms and a flexible environment. These can be related to the woman who wishes to seek help for urinary symptoms; the woman will need to feel empowered in order to do so, but her awareness of social norms (incontinence is normal after a baby) and the possibility of a judgemental environment (censure because of failure to complete pelvic floor muscle exercises) may make this impossible. It is evident that patients do want a patient-centred approach certainly in primary care with communication, partnership and health promotion (Little et al 2001).

One growing aspect of participation and empowerment is the Expert Patient Programme. This programme supposes that some patients with chronic diseases are often as, or more, knowledgeable than health professionals regarding some aspects of their condition and could run self-help management groups for those less able to understand (DH 2001). The idea of this was first mooted in *Saving Lives: Our Healthier Nation* (DH 1999), but no precise definition was given (Wilson 2001). A later document *Choosing Health* (DH 2004a) suggested building partnerships with others (for example consumer organisations) to implement the policy. Expert Patients can be defined as those patients with experience of self-management of a chronic condition and a model was designed and piloted successfully (Squire and Hill 2006). Primary Care Trusts nationally have been persuaded to run a number of courses for local people and many have done so very successfully (Lee et al 2006). A rise in chronic conditions generally prompted the emphasis on self-care initiatives and the Expert Patient Programme seeks to convince patients to self-care and manage their condition while reassuring them that it is socially acceptable (Wilson 2001). However, it is suggested that it takes more than a short course to

create an expert patient, it is an individual response shaped by the social and historical context of that individual (Wilson 2001).

It is interesting to note that nurses were the most anxious when dealing with expert patients, suffering reduced confidence and having concerns about litigation, they preferred the patient to be passive and discouraged empowerment to an extent, however, they were also the most able to meet the patients emotional needs (Wilson et al 2006). It seems that nurses need increased understanding of the role of the expert patient to preclude perceiving them as a threat. How effective are the education programmes for expert patients? Certainly it is known there can be increased satisfaction, but it is suggested that professionally led self-management or rehabilitation programmes have been found to be more effective with regard to medical issues such as hospital admission or use of other health services (Griffiths et al 2007). However, other issues may be more important for psychological well-being and it has also been shown that those with low self efficacy and health related quality of life particularly younger people benefit most from the Expert Patient Programme (Reeves et al 2008). The young incontinent woman with negatively affected quality of life therefore would be likely to benefit, although no research specifically regarding incontinence and the Expert Patient Programme has been identified.

In summary, it is evident that empowerment may be on several levels. Being aware of the relevance of symptoms and the possibility of treatment can empower women to seek help, which in itself is empowering. Quality of life for women may thus be improved and, in addition, some women may choose further involvement in planning care which can also benefit others.

10.7 Reflexivity and reflections on the study

Reflexivity has also been discussed in chapter 4. It is defined as thoughtful, conscious self awareness (Finlay 2002) and in this instance seeks to understand the possible effect of the researcher's behaviour or knowledge on the research process. This section revisits reflexivity to review and reflect on any issues arising from the analysis. It was evident from the commencement of the study that there would be conflict between the role of researcher and clinician as the study was conducted in the researcher's usual area of clinical work. The social researcher will inevitably influence the selection, collection and interpretation of any findings and behaviour regardless of the relationship to the participant and thus will affect the interviewees' response and therefore the findings (Finlay 2002). However, this may be more marked where a practitioner/patient relationship already exists. Subtle changes in body language and intonation could have a marked influence if the practitioner is already well known to the participant. The researcher would have enhanced influence in the interpretation of the responses provided by the participant and any further questions asked in the light of this interpretation. Simple issues such as asking a closed question, which even the most experienced researcher may do from time to time, could stop a line of enquiry. Reviewing the transcripts later did reveal some closed questions and it was noted that this happened more when the participant was not very forthcoming. Intervening during an observation session could also have had an effect on findings. During the observation session undertaken for this project there was an occasion when the midwife clearly did not understand what the patient was meaning and it was extremely difficult not to intervene and clarify the situation. Effects such as these can be minimised but not eliminated completely. The researcher must continually appraise the effect of personal knowledge and experience to maintain a reflexive approach and an inductive attitude towards the data (McGhee et al 2007).

Problems with recruitment have been discussed in chapter 3 but with hindsight wider advertisement of the project and an early visit to the postnatal groups would have raised awareness and possibly improved recruitment generally and more specifically the underrepresented ethnic minority groups. Less obvious were the unexpected difficulties experienced by the researcher when taking on the different role of researcher and the symbolic influences on this. Interviewing patients, often not on the surgery premises and always without the protective cover of a uniform was surprisingly different and at times difficult. This had not been anticipated at all; I experienced the vulnerability of the new researcher used to a much more authoritative role. This was further confused by the women asking clinical questions at times, this can facilitate a return to the clinical mode (Carolan 2003), which was experienced by the researcher. From a symbolic interactionist perspective the interviewees were all aware the researcher was a nurse, some were even regular patients and therefore had certain expectations from their perception of the meaning of the role (Stevenson et al 2004). Although it was difficult not to respond to clinical questions, doing so could affect the rest of the interview; the knowledge base of the woman would be altered. To ensure rigour the interviewer offered to answer clinical questions at the end of the interview rather than during it where possible. If the woman suggested the right information this was confirmed. The eight parameters of Chiovitti and Piran (2003) were followed to maintain rigour (Table 8).

It was envisaged that there was a possibility of some difficult emotional issues following disclosure of symptoms but this was not evident. Had there been any issues the researcher would have had a responsibility to the interviewee to handle this information with sensitivity and not go beyond the bounds of the interview schedule (Sullivan 1998). Chapter 2 emphasised the importance of awareness of local counselling facilities in case of any ongoing distress. Those who had bothersome symptoms were happy to discuss them; however, this could have been

due to the protection of the overall coping strategy these women employed. Few of the women felt they had a real problem in spite of the quantitative findings from the measurement tool; this questioned the value of a tool that measures symptoms with only one quality of life question. The women in this study were managing the symptoms they had and either did not perceive them as a clinical problem or had made a decision not to take any action. The study aimed to identify the reason why women did not take action and not what the perceived “problem” was. Encouraging women to agree to interview was even more difficult than originally envisaged, particularly those from an ethnic minority background.

Undertaking the systematic review prior to any interviews or focus groups gave rise to some tension, which has also been discussed in chapter 2. The longer term aim of the project was to clarify the evidence needed to encourage women to accept treatment as it was known from previous research that treatment-seeking was poor for women of all ages with urinary symptoms. A further concern was the result of the systematic review which showed that improvement is not maintained over the long term. However, as stated in chapter 2 the literature in this area has been criticised because of low quality and it is to be hoped that better quality research designs may demonstrate different results. Also there are few papers on the long term effects of pelvic floor muscle exercise. However, no literature on the topic of the interviews was reviewed prior to data collection. Reflexivity remains an important part of the study, allowing the effects of intersubjectivity and subjectivity to be included in the analysis rather than create a problem (Finlay 2002).

10.8 Limitations of the study

From the outset of this study recruitment was difficult, and with hindsight it would have been better to adopt a wider sampling framework as I was already aware that women were reluctant

to talk about urinary symptoms. This prolonged the study as further time was spent gaining ethics approval to recruit women from a wider area than originally agreed. In line with grounded theory, the constant comparative approach meant that new categories were explored in each subsequent interview. As they progressed it became more evident that urinary symptoms cannot be separated from the whole maternity experience, making the interviews increasingly protracted. Personal skills as an interviewer were limited initially and data may have been lost due to some closed questions in the early days. The transformation from practitioner to researcher was much more complex than at first realised, the daily questioning of patients at work was very different. The decision to analyse the data manually meant working with an unwieldy pile of papers and cards and for future projects computer software would be utilised. However, it may be useful to have experience of both methods.

My earlier research with older women may have affected my responses at times and work was continuing on papers regarding this, but I hope that returning to the literature on the older women may have strengthened my understanding of the later implications of enduring symptoms. Some groups are better represented than others; in particular ideally it would have been better to have more representation from ethnic minority groups. However, every attempt was made to sample as many different groups as possible. As a practice nurse I had limited knowledge and understanding of maternity care and was unaware at the outset that urinary symptoms were so firmly embedded within the culture of childbirth. It is also recognised that the prevalence of urinary symptoms apparent in this group may not be representative of the general population of postnatal women as some self-selection may have occurred. However, this was not a disadvantage as the research centred on women's experiences of urinary symptoms rather than the prevalence of them.

10.9 Implications for practice

At times it appeared that there was some confusion regarding roles and referral pathways between health professionals and in addition a lack of knowledge of the condition. This was evidenced by the experience of the women in this study and the literature (Mason et al 1999a, Herron-Marx et al 2007, Peake et al 1999) and may have affected further help-seeking (Teunissen et al 2005, Shaw et al 2001, Roe et al 1999). In addition midwives and health visitors have an important role in promoting continence in women both in the antenatal and postnatal periods (Button et al 1998). However, health visitors seldom gave advice about the pelvic floor, this was also found by others (Russell and Drennan 2007, Logan 2001, Parker 2001) and in addition and were also unsure about what constituted routine postnatal care. The postnatal examination was undertaken largely by general practitioners and the content was variable. Also help-seeking has been shown to be uncommon which may be due at times to health professionals not facilitating disclosure. From the focus groups it was evident that the continence nurses were both skilled and sympathetic. However, referral or treatment must be initiated in primary care, therefore general practitioners, practice nurses and health visitors need to be aware of guidelines, available services and treatment. This would enable general practice to be both educational and restorative. This has also been suggested by another paper which in addition proposes that school and family planning nurses could also have a role in education (Parker 2001), which would give women the recommended knowledge of the pelvic floor before pregnancy (Button et al 1998). This section explored evidence-based practice and the use of guidelines, and furthermore looked at possible strategies for relevant health promotion, referral and management in primary care with a particular regard for teamwork across the primary care team.

10.9.1 *Implementing evidence-based practice*

It is important to be aware of the evidence behind proposed treatment pathways. Rycroft-Malone et al (2004) suggested that there are four types of evidence to draw upon; research, patient experience, clinical experience and information from the local context. It was suggested that each of these constructs should be used to produce a robust cohesive package that is reproducible in real practice. Most policy is formulated by a large working group which includes a good mix of practitioners from the field as well as experts and users of the care under review. Although there is no consensus about the role users should play in policy generation, the different perspective the user will bring can add another dimension to the work, however, the optimum level of involvement in research is as yet uncertain (Beresford 2007). In addition Glasby et al (2007) argue that producing the evidence is not always straightforward, results can be conflicting and there is the question of how much evidence is needed to prove a point and who is qualified to decide that. The emphasis on formal research to produce evidence can lead to work that cannot be replicated in the real world and therefore may fail (Glasby et al 2007). The evidence must work for those who will need to use it not just in a randomised controlled trial. Thus the approach of Rycroft-Malone et al (2004) which draws knowledge from a much broader base is more likely to fit within the real world.

A measurement scale developed in the USA (BARRIERS) detailed 29 items that could be barriers to implementing research. This also proved useful in the UK setting and identified that of the top ten barriers six related to appraisal methods, either lacking time or skills to do so (Dunn et al 1997). Nurses do value research but need to have personal understanding of the evidence. If guidelines are unclear misinterpretation is possible (Carr and Schott 2002, Upton 1999), and lack of time for implementation may be an issue (McKenna et al 2004, Upton 1999). General practitioners were often mistrustful of new ventures, perceiving an ulterior motive

(McKenna et al 2004), but practice nurses may respond better and be able to influence general practitioners (Harrison et al 2002).

Looking more specifically at guidelines for urinary symptoms it was suggested that all primary care trusts should have a strategy to increase awareness of continence treatments (Button et al 1998), however, from the focus groups it was evident that although the continence nurses had set up education sessions some had had to be cancelled due to poor bookings. The midwives in the focus groups confirmed that this was apparently due in part to the fact that the number of nurses allowed to be away from any one unit at a time was very limited. There are several routine opportunities for enquiring about urinary symptoms in women, including routine cervical smears, family planning appointments and antenatal and postnatal appointments and it is suggested that primary care can easily incorporate questions about continence in these consultations (Button et al 1998). A controlled trial of a clinical handbook and a reference book was effective in increasing nurse's knowledge (Williams et al 1997). However, trials such as this do not necessarily improve practice staff, may revert to old methods once the trial is complete (Williams et al 1997, Schnelle et al 1993), although a further trial of the implemented service following a successful pilot (Williams et al 2000) was led by a continence nurse practitioner identified reduced urinary symptoms of all types and good satisfaction with the service (Williams et al 2005). National guidelines have been published which give clear instruction on management of all types of urinary incontinence (NICE 2006a) and a Cochrane Review (Hay-Smith and Dumoulin 2006) provided the guiding research evidence.

Using guidelines has been shown to be effective in some studies. For example, an evidence based protocol was designed following a review of the current evidence and produced an assessment questionnaire in addition to clear leaflets for bladder training and pelvic floor

muscle exercises (Sampselle et al 1997). A trial of the intervention showed a clear improvement in quality of life and continence status (Sampselle 2000). Similarly a small pilot of a patient oriented outcome tool identified an improvement in symptom severity rating; this had been developed by a team which included patients and caregivers as well as clinicians (Khera et al 2006). Further research to confirm the value of the tool is planned. Treatment can be offered in primary care and this next section explores this.

10.9.2 *Treatment in primary care*

General practice is the ideal opportunity to offer continence advice with family planning clinics and cervical smear appointments advocated as particularly appropriate (Button et al 1998). In addition basic assessment can be conducted by practice nurses or general practitioners although more work is needed to produce guidelines that make the process fit for purpose in the time-restricted world of general practice (Kirby et al 2006). These could be written in collaboration with the local continence clinic. Short and simple symptom questionnaires have been developed and can be very illuminating as can bladder diaries; both can be completed outside the consulting room. Primary prevention is also an issue for the older patient; to allow effective management which may increase quality of life and reduce psychological distress (Palmer 2002). No research specifically in the postnatal period was found in primary care but there is a small amount of literature in older women with urinary incontinence.

Studies undertaken in general practice waiting rooms identified a relatively high proportion of patients both male and female with urinary symptoms, however, less than half had taken help-seeking action (Shaw et al 2007, Byles et al 2003). General practitioners are often unwilling to undertake the necessary examinations and treatment (Grealish and O'Dowd 1998), this may be due to lack of time (Grealish and O'Dowd 1998), or knowledge (Shaw et al 2007, Grealish and

O'Dowd 1998). Several thought it was too complex an issue to be dealt with easily in general practice (Shaw et al 2007), although guidelines and health technology assessments suggest otherwise (NICE 2006a, Martin et al 2006).

Treatment of urinary symptoms has been found to be effective in primary care (Seim et al 1995, Lagro-Janssen et al 1991) and maintained at one year (Lagro-Janssen et al 1992). However, by five years this had deteriorated with poor compliance with pelvic floor muscle exercises identified as a key factor (Lagro-Janssen and van Weel 1998). A study in primary care using a nurse with some basic training showed improvement in urinary symptoms for men and women, which was maintained at twelve months and four years, again those who continued with the exercises fared better (O'Brien 1996). On the basis of this small amount of evidence it might be that the main factor in deterioration is patient concordance.

There is also not always a need for invasive investigations, a bladder diary, urine test, assessment of lifestyle measures such as general fluid and caffeine intake and digital assessment of pelvic floor muscle strength followed by a three month set programme of exercises is recommended as first line (NICE 2006a). Urge or mixed incontinence may benefit from the addition of a bladder training programme (NICE 2006a). Practice nurses could access training from the local continence nurses who are usually willing to offer help and journals relating to practice nursing also have useful articles. In addition practice nurses in common with all other nurses have free access to the NICE website and can obtain evidence-based information.

10.9.3 *Symptom scoring tools*

Symptom scoring tools make assessment easier and there are several well validated tools in general use. In the main the one adopted by the local continence clinic would seem sensible but occasionally a shorter one is required if time is limited. There are several short symptom scoring tools that could be utilised including the IIQ (Shumaker et al 1994) and longer ones (KHQ, Kelleher et al 1997), if more time is available, these have been discussed earlier in this chapter and are well validated. The value of a quality of life measure as part of the questionnaire is debatable as the literature is unclear on whether this is a good predictor of help-seeking. However, as previously noted there were clear benefits of programmes such as the Expert Patient Programme to those with negatively affected quality of life scores and therefore identifying those women may be beneficial (Reeves et al 2008). In addition the use of a tool utilising a condition specific health related quality of life score may be best employed. A trial that identified a decrease in impact of urinary symptoms and increase in self-management strategies also showed an improved condition-specific health related quality of life, but no difference in a general measure (McFall et al 2000).

10.9.4 *Health promotion*

The aim of health promotion is to enhance well-being and reduce ill-health, and primary care professionals can play a significant part in health promotion (MacLeod-Clarke and Maben 1999). This is also true in the USA where public health nurses show high health promoting behaviours (Blacconiere and Olenko 1999). However, older women do not always receive the recommended level of preventive care and may struggle to raise some general health issues, due to health professionals assuming certain symptoms are related to life changes such as the menopause or ageing (Meadows et al 2001). Audit and research can identify gaps in research and care to allow broadening of audit capacity outside the purely medical model (Phair et al

1999, MacLeod-Clarke and Maben 1999). Indeed it is suggested that the field of health is changing from a disease model to a health model, where a healthy lifestyle is encouraged along with primary prevention (Bandura 2004).

Teamwork is an important element of primary care, and is necessary for effective care (Campbell et al 2001). Good teamwork also requires communication (Molyneux 2001), but can be hampered by a lack of shared objectives and understanding (Shaw et al 2005). New patient initiatives should also involve patients themselves as discussed under patient participation. To help women with enduring urinary symptoms the whole team needs to be involved. It has become clear that more than one intervention is necessary. It is suggested that midwives, general practitioners, practice nurses, continence nurses, health visitors, physiotherapists and patients should meet to agree on a strategy that encompasses women of all ages utilising all opportunities for health promotion and assessment. In particular it must be accepted that women may or may not choose to seek help, while recognising that as circumstances change help-seeking may become a priority. This should include the use of a symptom scoring questionnaire and agreed referral pathways. Interested practice nurses can offer basic treatment in primary care but should be aware when to refer onwards.

In summary to return to the core category "Overcoming barriers to facilitate empowerment" this chapter has attempted to identify the meaning of this to women by exploring those barriers and relating them to existing literature and suggestions are proposed to help the women achieve empowerment. There appear to be two key times when young women might seek help, firstly when a return to work is imminent and secondly when children start school and women are free to return to leisure pursuits such as the gym. This may increase the bother experienced by symptoms and trigger help-seeking. However, women are often anxious about this due to the

influence of friends and family. Therefore it is important to use all routine opportunities to ask about urinary symptoms and encourage women to talk about urinary symptoms after childbirth. The health professional has an important role in preventing symptoms being normalised. The literature remains limited with regard to women's experiences of urinary symptoms in the postnatal period although a small number of papers have been published since the study was undertaken and have therefore been included in this chapter. The final chapter summarises the findings, the relationship of the findings to the literature and new information identified by this study.

Conclusion

11.1 Introduction

At the start of my journey as a researcher the original plan was to design an intervention for postnatal women based on the findings from their experiences and with their input, making an assumption that if they had symptoms they would want treatment. I had assumed non-attendance meant that it was in the wrong place, time or format and had not considered that it might simply be because it was unwanted. Looking at the information obtained in this study it could be argued that many of the women were satisfied with their state and had made a conscious decision not to access treatment. In addition Coyle and Williams (2000) debate whether it is right to expose populations who have hidden symptoms that they are coping with adequately simply because the medical fraternity deem it to be a problem. However it has been shown that there may be conflict between actions and words both in the literature and this study. The detailed analyses of the findings led to the core category which in turn may provide some explanation of the women's apparent resistance to treatment of urinary symptoms.

11.2 Critical evaluation

The aims of this study were to identify women's experiences, beliefs and knowledge of urinary symptoms in the postnatal period and to understand the perceptions of health professionals. A grounded theory approach was used incorporating interviews, focus groups and observation to allow for constant comparison and analysis of findings. From the detailed analysis of the findings the following major categories emerged for the women; messages women receive, seeking and understanding information, and responding to messages, and for the health

professionals; clarifying pathways of care, clarifying education, improving communication, understanding actions and serious issues, which led to the core category detailed below.

11.2.1 *The core category; Overcoming barriers to facilitate empowerment*

In essence, the core category revealed that there were several barriers that women and health professionals must overcome in order to approach the issue of urinary incontinence. Both the literature and this study identified that there can be problems with communication at all levels between women and health professional and also between health professionals, resulting at times in poor communication regarding urinary symptoms and accessing treatment. Furthermore, superficial education regarding pelvic floor muscle exercises and dysfunction, both in the antenatal and postnatal periods, coupled with difficulties with the enablement of disclosure on a sensitive subject could be disempowering for women and health professionals.

The negative but powerful influence of friends and family was a major factor in encouraging women to accept urinary symptoms as normal. The belief that urinary symptoms were 'normal' after pregnancy was therefore firmly embedded in the cultural experience of childbirth. This was evidenced by their acceptance of incontinence in older relations. It was part of the symbolic world of women to endure symptoms, asking for help may imply an inability to cope. Older women employed taunting jests and laughter at symptoms to reinforce this and intimidate the women into taking no action. This concept was particularly strong in the findings. Women may therefore use control as a coping strategy; while they can control the situation by whatever means are necessary they do not need to seek help. From the findings it appears that this is not always through choice but may often be because society and health professionals erect so many barriers it is sometimes difficult to take other action. It is suggested that helping women and health care professionals to overcome the barriers of communication and knowledge could

enable empowerment for women in relation to their physical health after childbirth. Collaborative working on the part of health professionals and women may be required to enable empowerment.

11.3 Summary

In summary, from this study it has become evident that women have different needs depending on symptoms and their knowledge and attitudes towards them and some key issues have been identified. In particular the power of the influence of friends and relatives has I think emerged as a much stronger issue than previously realised in the literature, it is far more complex than merely accepting symptoms as normal. The symbolic interaction underlying how some women behave is key to understanding the lack of action at times. The meaning of the symptoms to the women may preclude action as they may feel impelled to comply with the accepted norm and fear rejection by other women if they have the temerity to seek help.

Also emerging as a strong concept was the disinclination to undergo further examination in the postnatal period as a deterrent for help-seeking. This does not seem to appear in the literature identified so far. At times women were prepared to lie about symptoms to evade an examination. Empowerment for women therefore with regard to postnatal urinary symptoms means being able to believe that looking after the pelvic floor is normal and not accepting urinary symptoms after childbirth as normal. An intervention is unlikely to be successful unless it has empowerment as a basic premise, I would propose that there is no *right* intervention only a number of care pathways that enable choice and the appropriate outcomes for women, as defined by themselves.

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Appendix 1: Prevalence of urinary incontinence and risk factors in women

Author	Type of study	Country	Population	Sample size	Response Rate	Prevalence	How defined	Risk factors measured
Swithinbank et al 1999	Self-completed postal survey	UK	Women > 18yrs in one general practice	2641	80%	69% 30% When ICS definition used)	Any incontinence in last month B-FLUTS	0
Roe and Doll 2000	Self-completed postal survey	UK	Adults > 18 in two health authorities	12,529	53% (both sexes)	11.3% (women)	Ever or current incontinence	0
Perry et al 2000	Cross-sectional self-completed postal survey	UK	Adults > 40yrs	6941 (men) 7659 (women)	72.4% (women)	34%	Incontinence at any time and current	0
McGrother et al 2000	Self-completed postal survey	UK	Adults > 40yrs	79,710 (women) 74667 (men)	62.7% (women)	22.6% (period prevalence in women)	Any incontinence in last year	0
Nygaard et al 2008	Cross-sectional interview study	USA	Women > 20yrs	3440	75.4%	23.7%	Severity index, frequency of symptoms	0
Minassian et al 2008	Self-completed postal survey	USA	Women > 20yrs	2875	90%	49.2%	Any symptoms in last 12 months	Raised BMI
Thom et al 2006	Self-completed survey	USA	Women 40-69yrs	3240	65.1%	Any weekly incontinence 36% (Hispanic) 30% (White) 25%(Black) 19% (Asian-American)	Severity index, Interview; frequency of symptoms in last year	Hispanic race
Kinchen et al 2007	Self-completed postal survey	USA	Women 21-75yrs	6726	49.7%	44%	Symptoms in last seven days	0
Fultz et al 2005	Self-completed postal survey	USA	Women 18-60yrs	5130	66%	37%	Severity index Symptoms in last month	0

Appendix 1 continued

Carls 2007	Class distributed survey	USA	College female athletes aged 14- 21yrs	550 only 171 actually distributed	15.6% (of original sample) 50.2% of those actually sent out	28%	Revised but not revalidated B-FLUTS. Do you ever have symptoms	0
Hannestad et al 2000	Epidemiological survey, partly postal	Norway	Women > 20yrs	27,936	80%	25%	Severity index Any symptoms and frequency	Increase with age
Hunnskaar et al 2003	Self-completed postal survey	4 European countries	Women >18yrs	29, 500	58.1%	23% (Spain) 44% (France) 41% (Germany) 42% (UK)	Symptoms last 30 days	Lower level in Spain unexplained
Foldspang et al 1999	Self-completed postal survey	Denmark	Women 20-59yrs	6240	75.5%	15.1% (stress) 8.7% (urge) 6.8% (mixed)	Symptoms last 12 months	Episiotomy Perineal suturing Vaginal birth Incontinence in pregnancy
Choo et al 2007	Telephone survey	Korea	Women 30-79yrs	1500	86.9%	40.8% (overall) 22.9% (stress) 3.1% (urge) 14.9% (mixed)	Symptoms ever	0
Samuelsson et al 1997	Self-completed postal survey	Sweden	Women 20-59yrs	641	77%	27.7% 15.7% (stress) 2% (urge) 5.3% (mixed)	Current symptoms	Parity Age smoking
MacLennan et al 2000	Survey, conducted in the home with interviewer	Australia	Adults 15-97yrs	4440	51.3% (women)	35.3% (women any symptoms) 20.8% (stress)	Symptoms in last 12 months	Parity Pregnancy Instrumental delivery

Appendix 1 continued; Post natal studies

Mason et al 1999	Self-completed postal survey	UK	Women at 34 weeks gestation	1008	71% (stress incontinence only)	59% 34 (weeks) 31% (eight weeks postnatal)	Presence of stress symptoms, frequency and severity	Parity
Mayne et al 1995	Survey, completed at postnatal examination	UK	Women at six weeks postnatal	565	Convenience sample	19%	Any bladder problems	Higher maternal age (in primiparae)
Marshall et al 1996	Survey completed on wards after delivery. Two follow-up postal questionnaires at three and nine months (cluster samples)	Ireland	Women two to three days post delivery	2062	Convenience sample	59%	Any leakage related to any pregnancy	Parity
Wilson et al 1996	Self-completed cross sectional postal survey	New Zealand	Women twelve weeks postnatal	2137	70.5%	34.3%	Any symptoms relating to the recent pregnancy	Parity Obesity Method of delivery (SVB vs CS)
Burgio et al 2003	Prospective birth cohort study	USA	Women 2-3 days postnatal	523	Convenience sample	11.36% (any)	Have you ever had symptoms	Incontinence prior to pregnancy Incontinence during pregnancy Smoking Forceps delivery Breast feeding vaginal delivery Urinary frequency

Appendix 1 continued

Thomason et al 2007	Self completed survey	USA	Women six to nine months postnatal (primiparae only)	121 (64 currently continent, 57 currently incontinent)	Convenience sample	47%	Have you had any symptoms	Leakage during pregnancy
Farrell et al 2001	Prospective pregnancy cohort study	Canada	Primiparous women at six weeks and six months postnatal	595	Convenience sample	26% (at six months)	Any symptoms now	Vaginal delivery Instrumental delivery
Morkved and Bo 1999	Cohort study with interviews and urodynamic testing	Norway	Women eight weeks postnatal	144	72%	42%	Any symptoms	0

Appendix 1 continued Studies that Identified Risk factors

Authors	Type of study	Country	Population	Sample	Response rate	Prevalence	Risks measured
Glazener et al 2006	Prospective birth cohort cross sectional survey	UK	Primiparous women, single birth	3405	76%	29%	Increased parity Higher BMI Higher birth weight Older maternal age Vaginal delivery (versus caesarean section) Not significant; all other obstetric variables
Ewings et al 2005	Prospective birth cohort study	UK	Women on postnatal ward	723	76%	45.5%	Prior symptoms Constipation Previous episiotomy Epidural Not significant: all other obstetric variables
Chaliha et al 1999	Prospective longitudinal pregnancy cohort study	UK	Women 34 weeks gestation	549	Convenience sample	3.6% (before) 43.7% (during) 14.6% (after pregnancy)	Pregnancy Delivery collagen weakness association not found Not significant; collagen weakness, joint hyper-mobility, all other obstetric variables

Appendix 1 continued

Stainton et al 2005	Pregnancy cohort Longitudinal study	Australia	Women 14 weeks gestation	124	Convenience sample	Not stated	Leakage prior to first pregnancy Long second stage of labour Not significant; method of delivery
Altman et al 2006	Prospective longitudinal observational cohort study	Sweden	Primiparous women with vaginal delivery on postnatal ward	304	81% (at ten years)	2% (index delivery) 18% (at ten years) moderate/severe stress symptoms)	1 st vaginal delivery symptoms at nine months Not significant; parity, all other obstetric variables
Schytt et al 2004	Pregnancy cohort study	Sweden	Women booking for antenatal care and at ten years	2390	75%	22% (at one year)	Urinary incontinence at four-eight weeks postnatal (incontinence at one year) Multiparity Obesity Constipation Not significant all other obstetric variables

Appendix 2

PromoCon Pelvic Floor Risk Assessment Tool

<p>Surname:</p> <p>Forename:</p> <p>Address:</p> <p>..... Postcode:</p> <p>D.O.B Consultant:</p> <p>Hospital Number:</p>	<p>Part 2 Postnatal Assessment (To be completed prior to discharge from hospital)</p> <p>Date of Postnatal Assessment:</p> <p>Professional Signature:</p> <p>Print Name:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right; vertical-align: top;">Tick</td> </tr> <tr> <td>• Antenatal score of 3+</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Large baby 4kg+</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Prolonged active second stage (1hr+)</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Forceps/ventouse delivery</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Perineal trauma other than first degree tear</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Epidural in labour</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Single Drainage by catheter > 800mls</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> </table> <p>Postnatal score total </p> <p>• CURRENTLY INCONTINENT - REFER TO CONTINENCE SERVICE.</p>		Tick	• Antenatal score of 3+	<input type="checkbox"/>	• Large baby 4kg+	<input type="checkbox"/>	• Prolonged active second stage (1hr+)	<input type="checkbox"/>	• Forceps/ventouse delivery	<input type="checkbox"/>	• Perineal trauma other than first degree tear	<input type="checkbox"/>	• Epidural in labour	<input type="checkbox"/>	• Single Drainage by catheter > 800mls	<input type="checkbox"/>
	Tick																
• Antenatal score of 3+	<input type="checkbox"/>																
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• Single Drainage by catheter > 800mls	<input type="checkbox"/>																
<p>Part 1 Antenatal Assessment (To be completed at booking)</p> <p>Date of Assessment:</p> <p>Professional Signature:</p> <p>Print Name:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right; vertical-align: top;">Tick</td> </tr> <tr> <td>• Previous history of bladder and bowel problems including bedwetting</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Age 35+</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Body Mass Index 30+</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Chronic constipation - needing to strain or use laxatives</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>• Multiparity</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> </table> <p>Antenatal Score Total </p> <p>ACTION</p> <ul style="list-style-type: none"> • Currently incontinent- refer to continence service. • If previous history of bladder and bowel problems discuss delivery options. • If score 3+, make a note in antenatal records that PELVIC FLOOR IS AT RISK and review management options. <p>Comments:</p>		Tick	• Previous history of bladder and bowel problems including bedwetting	<input type="checkbox"/>	• Age 35+	<input type="checkbox"/>	• Body Mass Index 30+	<input type="checkbox"/>	• Chronic constipation - needing to strain or use laxatives	<input type="checkbox"/>	• Multiparity	<input type="checkbox"/>	<p>ACTION</p> <p>0 - Low Risk – One to one PFME (preferable) plus literature</p> <p>1 - 4 Medium Risk – One to one PFME(essential) plus literature to indicate that patient is at risk</p> <p>5 - 7 High Risk – REFERRAL TO CONTINENCE SERVICE</p> <p>Part 3 Total score and supporting information to be passed on to the health visitor. This will serve to give guidance in future management.</p> <p>Comments:</p>				
	Tick																
• Previous history of bladder and bowel problems including bedwetting	<input type="checkbox"/>																
• Age 35+	<input type="checkbox"/>																
• Body Mass Index 30+	<input type="checkbox"/>																
• Chronic constipation - needing to strain or use laxatives	<input type="checkbox"/>																
• Multiparity	<input type="checkbox"/>																
<p>Please refer to continence service at :-</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>																	

**Appendix 4: Pelvic floor muscle exercises versus usual care trials
data extraction form**

Paper ID:
Reviewers Name:.....
Date of Extraction:.....

Study Details:

Title:			
Author(s):			
Date of completion/publication:			
Data source:			
published		Work in progress;	
un-published		Grey literature:	

Source of funding

Government org	Voluntary org
Commercial org	Charitable org
Pharmaceutical org	Research body
Health care provider	unclear
Other, please state:	

Methods:

Study Design:

RCT:		Other:	
Quasi-RCT		please specify	

Power Calculation:

Done	[Not Done	[] []	Unclear	[]
------	---	----------	---------	---------	-----

Done = If the study has documented sufficient statistical power to detect clinically important effects as statistically important.

Not done = If the author states that the study was underpowered.

Not clear = If not required

Adequate allocation concealment (please state method):	Done []	Not done []	Unclear []
Baseline Measurements:	Done []	Not done []	Unclear []
Blinded assessment of primary outcome	Done []	Not done []	Unclear []

Loss to follow-up	Done []	Not done []	Unclear []
-------------------	----------	--------------	-------------

Reliable primary outcome	Done []	Not done []	Unclear []
--------------------------	----------	--------------	-------------

Follow-up rate:	80-100% []	< 80% []	Unclear []
-----------------	-------------	-----------	-------------

Intention to treat analysis	Done []	Not Done []	Unclear []
-----------------------------	----------	--------------	-------------

Length of follow-up:

NB; Quality indicators recorded in accordance with EPOC data collection checklist (2002).

Participants:

Country of study:..... Location of Study.....
Multi-centre
Single centre study:..... Study.....

Summary of inclusion/exclusion criteria:

Total number of participants:
Number allocated to treatment
Number allocated to usual care

All female []

Interventions:

Structured regime
Initial advice only

Usual care offered;

Comments

Outcomes:

How was improvement defined: clinical examination [] Pre-defined clinical indicators []
Details;

Improvement rates in;

Treatment Group: Usual care Group:

Comments:

Follow-up; Postal Face to Face

Outcomes of intervention;

Symptom improvement
Other measures; (e.g. Quality of Life)

Doing exercises	more likely	less likely
Relevance of parity, comments;		
Relevance of delivery type, comments:		
Referral elsewhere		
Other issues		

Appendix 5

Female Urinary Symptom Score (FUSS) Modified from the International Prostatic Symptom Score

Patient Identification:	Date:						
	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always	Fill in your score
1. Incomplete emptying Over the past month, how often have you had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5	
2. Frequency Over the past month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5	
3. Stress incontinence Over the past month, how often have you lost urine on laughing, coughing, or sneezing?	0	1	2	3	4	5	
4. Urgency Over the past month, how often have you found it difficult to postpone urination?	0	1	2	3	4	5	
5. Urge incontinence Over the past month, how often have you leaked urine before reaching the toilet?	0	1	2	3	4	5	
6. Straining Over the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5	

	None	1 Time	2 Times	3 Times	4 Times	5 times or more	
7. Nocturia Over the past month, how many times did you most typically get up to urinate from the time you went to bed at night until the time you got up in the morning?	0	1	2	3	4	5	
Total score							

Quality of Life due to Urinary Symptoms	Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible
If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that? (Please circle appropriate number)	0	1	2	3	4	5	6

Appendix 6

PRACTICE INFORMATION SHEET

Version 1 21st June 2002

Project leader; Ann Wagg

This practice is taking part in a study to find out the best way of offering help to women who suffer from urinary incontinence after having a baby.

It is reported that up to 64% of women suffer stress incontinence during pregnancy (Chiarelli and Campbell 1997), over 30% of women have these problems for up to a year after delivery and it is estimated that about 20% have permanent problems (Morkved and Bo 2000). There is strong evidence that pelvic floor exercises are effective in the postnatal period if taught correctly (Berghmans et al 1998). Improvement is maintained in a significantly larger number when monitored regularly (Glazener et al 1998). However there is also evidence that women do not come forward for treatment. Mason et al (1999) found that very few women sought help or advice in spite of symptoms that caused psychological stress and physical discomfort. In general continence problems tend to deteriorate with time. This has a cost implication for the national health service with regard to appliances including pads, pants and catheters and nursing care.

For these reasons we feel it is important to try to improve the numbers of women accessing treatment. The protocol details the actual study and copies are available to any member of staff wishing to read it. Briefly we will be seeking to interview women after pregnancy about their views on urinary symptoms. This information will be used to plan an intervention programme, which we will then evaluate. At this early stage all we want is the views of women. They will be contacted by letter and offered the opportunity to be interviewed at a time and place to suit them. Copies of the information sheet for the patient are also available.

References;

- Berghmans L., Hendriks H., Hay-Smith E., de Bies R., van Doorn E. (1998) Conservative treatment of stress urinary incontinence in women; a systematic review of randomised controlled trials. *British Journal of Urology*, **82**, 181-191.
- Chiarelli P., Campbell E. (1997) Incontinence during pregnancy, prevalence and opportunities for continence promotion. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, **37**(1), 66-72.
- Glazener C., M., Lang G., Wilson P., D. (1998) Postnatal incontinence; a multi-centre randomised controlled trial of conservative treatment. *British Journal of Obstetrics and gynaecology* **105**, supplement 17.
- Mason L., Glenn S., Appleton C. (1999) The experience of stress incontinence after childbirth. *Birth*, **26**(3) 164-171.
- Morkved S., Bo K. (2000) Effect of postpartum pelvic floor muscle training in prevention and treatment of urinary incontinence: a one year follow-up. *British Journal of Obstetrics and Gynaecology*, **107**, 1022-1028.

Appendix 7

Patient information sheet May 2003

Dear Patient,

This practice is keen to improve services for women after childbirth. One problem that has been found through research is that some women have problems with urinary symptoms. This may be when laughing, sneezing, lifting or coughing or other problems such as frequency. I would like to ask you if you would help us by taking part. Before you decide, it is important for you to understand why the research is being done and what it will involve. The letter explains this but please do contact me if you want any further information.

It is known that women may have urinary problems in later life. For many of these women the problems started after having a baby and got worse as time went on. Treatment can help many women but we know that they are reluctant to seek help. We would like to try to find out the reasons why they might not seek help by interviewing some new mothers. We would value your help in identifying what women think about urinary leakage (whether or not it is a problem for you), and what stops them seeking help. We will also be interviewing different health care professionals for their views. This will include health visitors, practice nurses, and midwives. Treatment is available locally, we aim to improve the way we offer it to encourage more women to use it.

We hope to interview about 30 women who have recently given birth. You do not have to take part and at any point you can change your mind. Your decision will not affect your care in any way. No specific treatment is given but if you have problems and would like help this can be arranged. Any information we obtain will be strictly confidential. To make it easier to interpret information given interviews are normally tape-recorded. Your name will not appear anywhere and any information whether recorded or written will be stored safely and destroyed when the project is finished. Interviews can be carried out at a venue of your choice.

The local research ethics committee has given permission for the interviews and your doctor is aware of the study. We will ask you to sign a consent form and will give you a copy. You should keep this information sheet and your form in a safe place. It is hoped that this research will benefit women and reduce the numbers needing help in later life. If you have any concerns about this project please contact Ann Wagg on 01438 313223. If you would be willing to take part please complete the enclosed slip and return it in the envelope supplied and I will contact you.

Thank you very much for your help.

Yours sincerely

Ann Wagg, Practice Nurse.

Appendix 8 **Study Protocol**

A qualitative study of women's experiences, beliefs and knowledge of urinary symptoms in the post partum period and perceptions of health care delivery.

Summary of background

There is strong evidence that pelvic floor exercises are effective in the postnatal period if taught correctly (Berghmans et al 1998). Improvement is maintained in a significantly larger number of women when monitored regularly (Glazener et al 1998). However, there is also evidence that women do not come forward for treatment. Mason et al (1999) found that very few women sought help or advice in spite of symptoms that caused psychological stress and physical discomfort. In general continence problems deteriorate with time. This has a cost implication for the National Health Service with regard to appliances including pads, pants and catheters and nursing care. Clearly from both the patients' and the National Health Service viewpoint improvements in identification and management are needed. There is only a small body of evidence available regarding reasons why women do not access treatment, and so far no attempt to look at ways of improving attendance at clinics by acting on evidence from qualitative work has been identified.

This study aims to identify women's experiences, beliefs and knowledge of urinary symptoms in pregnancy and seeks to understand the perceptions of health care professionals.

The objectives are:

- 1) To systematically review the existing literature on urinary symptoms in women of childbearing age.
- 2) To describe the experiences and beliefs of younger women experiencing urinary symptoms in pregnancy and the postpartum period and their perceptions of health care delivery.
- 3) To explore the attitudes, beliefs and knowledge regarding urinary symptoms in women of childbearing age of health care professionals.
- 4) To use the evidence elicited to develop an intervention programme.
- 5) To evaluate the intervention through measurement of improvement in urinary symptoms and subjective outcomes reported by women and health professionals.

Method

A grounded theory approach will be used to interview the women. Essentially this means starting with a phenomenon that needs to be explored in order to produce theory (Strauss and Corbin 1990). If the data obtained is comprehensive enough it can be applied to the phenomenon in a variety of contexts and still be understandable (Strauss and Corbin 1990). Bowling (1997) suggests that data gathering, analysis and theory can be reciprocal, with the theory being developed from the study of the phenomenon it represents.

Sample

The sample will be from the practice where the author currently works. All aspects will be discussed with all relevant members of staff within the health centre. The clerk responsible for the antenatal clinic will be asked to report new pregnancies and the midwife at their first attendance will ask the patients if they are interested. Women who express an interest will be sent an information sheet and consent form and offered the opportunity to discuss any concerns. It is planned to interview at 12 weeks and 1 year postnatal. The interviews will be semi-structured. Theoretical sampling will be used, in this the interviewer selects an area to explore, choosing a wide variety of clients and using a brief guideline interview allows the theory to develop. After data saturation is reached i.e. no new information is emerging the interviewing will cease.

Data analysis

This will be by an open coding approach, this allows for a large number of categories and analysis after each interview encourages the interviewer to think about the process and note any observations that may prove relevant later. In this way according to Strauss and Corbin (1990) new information can be added to the interview schedule as it emerges thus enriching the findings.

The health care professionals will be interviewed using a semi-structured questionnaire, relating to current attitudes, beliefs and knowledge. This will identify gaps, which can be addressed in the final stage of the project. The content of this will be influenced by the results of the interviews with the women. There will almost certainly be issues that are new. The analysis of the qualitative study will inform the development of phase 2, to be submitted at a later date.

References:

- Berghmans L., Hendriks H., Hay-Smith E., de Bies R., van Doorn E. (1998) Conservative treatment of stress urinary incontinence in women; a systematic review of randomised controlled trials. *British Journal of Urology*, **82**, 181-191.
- Glazener C., M., Lang G., Wilson P., D. (1998) Postnatal incontinence; a multi-centre randomised controlled trial of conservative treatment. *British Journal of Obstetrics and Gynaecology* **105**, supplement 17.
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- Sheldon L. (1998) Grounded theory: issues for research in nursing. *Nursing Standard*, **12**(52), 47-50.
- Strauss A., Corbin J. (1990) *Basics of qualitative research; Grounded theory, procedures and Techniques*. Sage Publications, Newbury Park.

Appendix 10

Topic guide

The following demographic information will be obtained;

Age

Ethnicity

Occupation

Breastfeeding or not

Smoker or non-smoker

No of pregnancies

Type of delivery

Thank you very much for agreeing to talk to me.

The following subject headings will be used, but the women will be encouraged to lead the conversation.

The definition of leakage

How common it is

Causes

Treatment, knowledge and opinion

Talking about it a) with friends b) with health professionals

Effect on lifestyle

Future problems

Accessing treatment

Where and when should it take place

Anything else you would like to add?

Thank you very much for taking part, your contribution is very valuable and I really appreciate the time you have spared particularly when you have a new baby to look after. I hope that if you do ever have any leakage problems you will feel that you can ask for help.

Appendix 11 Histogram main surgery population

Age Sex Breakdown in 5 year Bands

21/02/2008

List size HC 31.12.2007

s:\meddata\s6000\report\custom\awallis\misc\qry60.mrl

	Males	Age	Females	
271	■■■■■■■■■	0-4	■■■■■■■■■	287
270	■■■■■■■■■	5-9	■■■■■■■	237
289	■■■■■■■■■	10-14	■■■■■■■■■	296
334	■■■■■■■■■	15-19	■■■■■■■■■	306
322	■■■■■■■■■	20-24	■■■■■■■■■	307
322	■■■■■■■■■	25-29	■■■■■■■■■	352
300	■■■■■■■■■	30-34	■■■■■■■■■	337
412	■■■■■■■■■	35-39	■■■■■■■■■	378
455	■■■■■■■■■	40-44	■■■■■■■■■	415
397	■■■■■■■■■	45-49	■■■■■■■■■	382
340	■■■■■■■■■	50-54	■■■■■■■■■	308
260	■■■■■■■	55-59	■■■■■■■	263
245	■■■■■■■	60-64	■■■■■■■	260
201	■■■■■	65-69	■■■■■	208
170	■■■■	70-74	■■■■	216
151	■■■■	75-79	■■■■	192
103	■■■	80-84	■■■	145
60	■	85-89	■	102
14		90-94	■	37
4		95+		13
4,920				5,041
	Total		9,961	

Appendix 12 Histogram branch surgery population

Age Sex Breakdown in 5 year Bands

21/02/2008

List size pops 31/12/2007

s:\meddata\s6000\report\custom\awallis\misc\qry59.mrl

	Males	Age	Females	
216	■■■■■■■■■■	0- 4	■■■■■■■■	186
242	■■■■■■■■■■	5- 9	■■■■■■■■■	204
268	■■■■■■■■■■■	10-14	■■■■■■■■■■■	256
280	■■■■■■■■■■■	15-19	■■■■■■■■■■■	254
182	■■■■■■■■	20-24	■■■■■■■■■	225
190	■■■■■■■■■	25-29	■■■■■■■■■	220
210	■■■■■■■■■	30-34	■■■■■■■■■	228
281	■■■■■■■■■■■	35-39	■■■■■■■■■■■	300
361	■■■■■■■■■■■	40-44	■■■■■■■■■■■	368
348	■■■■■■■■■■■	45-49	■■■■■■■■■■■	340
258	■■■■■■■■■	50-54	■■■■■■■■■	202
177	■■■■■■■	55-59	■■■■■■■	189
160	■■■■■■■	60-64	■■■■■■■	189
143	■■■■■■■	65-69	■■■■■■■	154
127	■■■■■	70-74	■■■■■	160
79	■■■	75-79	■■■■	132
61	■■■	80-84	■■■	96
29	■	85-89	■	43
8		90-94		10
2		95+		7
3,622	Total		7,385	3,763

Appendix 13 Patient leaflet; spontaneous vaginal delivery

Appendix 14 Patient leaflet; caesarean section

**Appendix 15
Sample Transcript**

TAPE NO. 16495 – INTERVIEW 02/04/04 FUSS SCORE 9

(Patient response in bold type)

What I'm doing is I'm interviewing mums with fairly young babies to see what they've got in the way of urinary symptoms if they have and what they think about it and what they've been told about it and what they know and this sort of thing and so firstly just a few basic background things, how old are you at the moment?

33

33 and do you work?

No.

No because you've got more than one baby haven't you, it isn't your first?

No my youngest is 10 now, well the youngest is 10 weeks.

So how many children have you had?

3.

3 children and so 10 and the other one is how old?

12.

12 right OK. And are you breastfeeding this baby?

Yes.

And do you smoke?

Yes.

Right OK. How many a day?

At the most anything between 10 and 15 but the majority of time it's under 10 now.

Is it, oh good? So you're trying to keep it down because of the baby.

Yes.

Good, good. They don't like smoke, do you little baby? She still wants more food I think, that little mouth.

She does nothing but bash herself in the face. (step daughter talking)

What sort of delivery for this baby?

She is just awkward.

Oh right.

Well no. It was normal delivery but she came out with her hand up.

Oh really!

Yes.

You wanted to get out didn't you?

Yes she did. It was, I didn't have any tears or anything but it was just so painful and I was in a lot of pain afterwards because of the hand being up.

Yes, yes, it was getting in the way.

I knew something wasn't right, I said to the midwife is everything all right?

Yes fine.

She didn't tell me the hand was up until she was out.

Oh right.

Whatever it is something's pulling.

Well it changes the dimensions of the baby doesn't it, getting wider.

Yes.

And you feel that. You previous 2 children, were they normal deliveries as well?

Yes.

No problems with any of it, any tears or anything then?

A slight tear with the first one but that wasn't, I didn't need a stitch of anything.

Right OK. And how long was the labour this time, can you remember?

I went in at 4 o'clock, in the morning, 3 o'clock in the morning.

It's always 4 o'clock in the morning isn't it?

I know that because you woke me up, well dad woke me up. (step daughter) (*Sounds while papers looked through.*) They normally put it on here. Oh yes, I did go at 3.

3 hours right, so that's fairly quick then wasn't it? OK. And your previous 2 pregnancies were they fairly quick as well or?

The first one was 11 hours, the second one was 2 ¾ hours.

Oh right so that was quite quick for the second wasn't it.

Oh yes.

Yes, yes. Right OK. Now to go on to water works symptoms which is really my main focus. If I said to you have you got any water works problems, what would you think I was meaning?

Weak bladder, wetting yourself when you're coughing or sneezing.

Right.

Or pain when you're going to the toilet.

Right. Do you know how common that sort of thing is after a pregnancy?

I think very common.

Right. And you mentioned a bit earlier on that you were going to the loo all the time in pregnancy, was that just wanting to go to the loo frequently or did you ever leak or ...

Oh I did leak yes. Because I spent, I kept nicking pads off you didn't I about the last 3 or 4 weeks of pregnancy, wearing pads just to make sure.

And was this when you were coughing or?

Yes.

Something like that. Right OK. And did this just happen for the first time in this pregnancy?

No the second pregnancy I was very, very poorly, I had an ear infection and I always get a cough, every time after I mean I've got a bit of a sore throat at the moment from the cough. It was the last month of that pregnancy when I started wearing those big sanitary towels because it was when I coughed I was leaking, I couldn't lay down to sleep, I had to sit up to sleep and eventually my mum had had enough and said right, I'm taking you to the doctors and I said no, I'm not going, so she phoned the doctors and got me sorted out, but I did have a few problems.

And with your first pregnancy do you remember?

No problems.

No problems at all?

Not as far as I remember, no. I mean there's the usual you know like needing to go to the toilet but leakage no.

Right, no leakage. Right OK. And do you remember after your first pregnancy if you had any problems then?

Only with the tear.

Right.

Because that was everso painful.

Yes but no leaking or anything?

No.

And after your second pregnancy?

There was a few then because again I didn't start my pelvic floor exercises.

Oh right.

I did them a little bit late. I was too busy because I was on my own with the 2 boys.

Right.

And sort of ferrying to nurseries or playgroup and what not and looking after the baby on my own.

Yes.

I was just too preoccupied with the boys, so yes, doing the same with this one.

How do you feel? I mean do you feel that you should be doing the exercises? When you haven't done them, how do you feel about that?

I have to, I mean in the back of my mind it's like you should be doing it because if you don't do it now you're never going to get it right and there's going to be problems down the line. I know there's going to be problems down the line if I don't sort it out, yes.

What do you think might happen in the future if you didn't do anything? What do you think might happen?

Well, incontinence I suppose. And because its like my mum, every time you sneeze, cough or laugh, standing there, she's always standing with her legs crossed going like this when she's coughing and I don' want to be like that. I want to be able just dot about when I like and I don't want to be wearing pads for the rest of my life. I can't be doing with that.

No. What other things do you think it might affect if you have a problem that was untreated? How else would it affect your life?

Obviously in your bladder. Well you wouldn't be able to go many places walking because of the problem. You wouldn't be able to run for a bus.

No, no that's right.

I mean OK I'm not that old but you know this one's going to want me to be playing with her and....

Yes.

....the boys like me to play football with them and if I'm going to be wetting myself I won't be able to do it.

Not fun.

No, that's right.

Do you know what treatments are available? Do you know anything about what might happen if you came and said I need help?

No. I haven't got a clue.

So no one's ever suggested you have anything further or?

No.

Told you anything?

No.

In, I mean probably you may not remember, but after your first pregnancy, do you remember anyone talking to you about whether your "water works" were OK or pelvic floor exercises or anything like that?

Yes, the midwife and the doctor and the doctor used to come out to the house then and he sort of said to me how are you doing now, is everything OK and checked with me then and the health visitor spoke to me quite a lot about it as well and but I was doing it, it was just the one baby then and I was making sure I was doing it every day because then you were supposed to do it when you had a wee, now I've been told you don't do it when you wee...

That's right yes.

...because it promotes water retention or something so, it's you know sort of, I think of it when I go to the toilet...

Yes.

...but I think no don't do it now, do it in a minute. But I do try to fit it in a couple of times a day but I don't always remember, it's terrible.

No, it is hard, I mean it is hard definitely. it's quite interesting that you've had 3 pregnancies so we should see what changes have occurred, what happened at your post natal examination each time, what sort of things have you been asked or what's been done for you when you come along?

Well she was the last one, when I went there it was just you know how is everything, is everything working OK and that was when I saw your colleague...

Yes.

....and I said and she said to me any problem with your water works and any leakage and I said to her if I say yes, will you examine me and she said no, I said yes.

(laughter)

You know it's just, it's like the whole having the baby and you get fiddled about with so much you don't want to be fiddled about with any more.

Right, so that would be a bit of an issue if you felt you had to have something where you were examined....

Yes, it is. You know I mean the smear tests I don't like having them done and you know just thinking about when everybody's....

Yes. I'm...

....you know but that's me, that's me personally but it was just checking, you know when I had her, it was checking everything's OK and as far as I remember it was the same when I had the boys, it was just questions and making sure you know they felt your tummy as well then but the nurse didn't after I had her and the doctor didn't check either. But the doctor did ask me, because my ear was hurting as well when I ...

So you saw the doctor anyway.

Yes so when I went in to see him, he asked me was everything else OK, water works OK.

What did you expect from the pelvic, sorry from the post natal examination?

With the first baby I expected to be fiddled about with if you like.

Right, yes, yes.

Not, now it sounds awful saying it like that doesn't it but you know to maybe have an internal examination or something but I didn't know what to expect and then when it was sort of, nobody sort of came anywhere near, I went (*assume makes gesture here*). The second one, it's still there in the back of my mind and it was when I went down for the 6 week check after having the ? and it was like well I want to have a look and that does put me off, it does.

Would the possibility of having to be examined put you off going for treatment with any problems you might have do you think?

It would make me put it off for a long while. Yes I'd have to pluck up the courage.

Right, but you would in the end.

I would eventually yes, knowing me I'd probably leave it until it was, not too late, but I'd be wetting myself on the way down there sort of thing you know.

What about where you'd like to have your treatment? Supposing you'd gone to your GP and said I've got a problem, I need some help, where would you think you'd get the help and where would you like it to be?

Well I would assume if there was a need for drastic action you'd end up at the hospital, if not maybe sort of with yourself or one of your partners at the doctors.

Yes.

Sort of just with the local GP surgery or someone with a nurse, a practice nurse.

Would you be more worried about say going to the hospital or?

If I was referred to the hospital then yes I probably would because I'm a panicker and a born worrier anyway, I'd probably think oh my God this is a real problem you know. I'd have to have it all explained to me in real layman's terms where it's...

Well that's fair enough.

You know you think oh I think I'm just going down the doctors, ah it's not that much or a problem and you get referred to the hospital, oh no, what's happening?

(laughter)

What have other people said to you about urinary problems, if you've ever discussed it, what have either friends, relations, colleagues or whatever else said to you?

I haven't really discussed it as, I've thought about it, I mean, there's me mum with her problems.

How did you get to know about that?

Because she lets everybody know.

(laughter)

Oh right.

She's one of the, she'll cough and she'll sort of go, oh I've just wet myself...

Oh right, so she...

You know she, you're on the phone to her and she says I must go to the toilet and she'll go to the toilet while she's on the phone to you, so she does sort of....

Oh right so, yes its...

...let us know, I mean she doesn't tell the whole world....

No.

...I mean she wouldn't say anything if you was her but you know....

But the immediate family...

Yes.

...she doesn't have any problems with talking about it.

She's always moaning about it anyway so....

You've had some problems with leaking you said. Have you mentioned that to her or?

Yes I have, especially after having Katie. I didn't talk to anybody very much with the boys but after having Katie I think I've had more problems now than I did with the boys.

Have you?

And I sort of, you know I've spoken to mum about it because she's had it herself so I've talked to her about it because you know, always wear pads and you know she's sort of you know tried to give me some sort of advice but mum's a great one for leaving it.

Right yes. So at the moment you do still have some leaking occasionally do you?

It depends on if I'm emptying my bowels or not to be honest with you.

Right, yes, yes. That'll have a big effect.

Yes I had trouble yesterday emptying my bowels, it was, oh because I've been suffering from piles as well and trying to go to the toilet yesterday was very painful and I did have leakage yesterday....

Yesterday, right.

...but not enough to warrant wearing pads.

Right.

But there was enough there to know sort of, I mean because I've got this cough as well which isn't helping, and obviously when you're coughing you're putting pressure down below as well isn't it.

Yes that's right.

And I did, I've noticed, you know if I'm having trouble emptying my bowels then....

That makes a difference.

Yes.

Yes, yes. And during your labour, do you remember the midwife asking you if you'd been to the toilet or making sure you were going regularly at all?

I seem to remember her asking when the last time, no she asked me to do a sample when I got there so she knew when I'd....

So she knew you....

...because she asked me, yes she said sort of you know when was the last time I'd been, did I need to go because she needed a wee sample.

Right.

So she didn't say, she obviously knew when I'd been anyway.

Right. And have you in any of your pregnancies afterwards had any problem actually passing water, not leaking, but actually having trouble going?

Not that I can remember, no.

So you don't work. What do you think the effect of going to work might have on these things like water works symptoms?

Going by previous jobs, like working in a shop and being the Deputy Manager there, obviously you've got to be to the forefront in the public eye and if you've got to keep dashing to the toilet, it's not very good especially if you're, in the shop I was in you had to go up 4 flights of stairs.

Oh dear, so that would be a problem.

So you'd see leakage going up the stairs if it was that bad.

Yes.

You know sitting down at a desk because I'm a trained secretary, if I was sitting at a desk all day I'd have to be up every 5 minutes I suppose and it could be embarrassing if you did start to leak, you know wet trousers or skirt and then you've got to walk past all your colleagues to get to the toilet as well...

Yes, yes. There's all those things. What is your image, you mentioned in the future incontinence would be the thing if you did nothing, what's your image of an elderly person who's incontinent, what do you think about them?

I suppose it springs to mind they're smelly but that sounds awful now.

No, no, it's a very....

Well not having a good quality of life because they wouldn't be able to go out and if they did they wouldn't be able to go very far.

Yes.

And you'd have to wear pads which again, that's not an answer.

No.

You know, just not being able to control yourself, you, I imagine it's sort of one linked to the other if you can't control your wee, perhaps you can't control your bowels as well. You know that one is linked to the other one and it's just, I don't fancy the idea of that.

Yes. Did you go to any ante natal classes at all?

Not with these last two pregnancies, the first one I attended a few but I think because my back was hurting so much, I just didn't go any more, I did a couple but I just couldn't manage it with my back, it really plays up during pregnancy.

Oh does it.

Yes, ?? as well, still suffering.

Oh dear. What about sort of chatting with friends? Presumably you've got sort of friends similar sort of age who've also got young children.

No.

No. Oh right

I keep myself to myself. I'm, I've had friends in the past obviously and I've been to some mums and toddlers groups with the boys but the sort of, I've mixed more with people older than myself if I....

Right. Right.

I mean there's like my sister, she's 3 years older than me, we used to go to mothers and toddlers together....

Together, right OK.

...and there was a lady that worked with my mum, she had a baby the same time as me, so she came to mothers and toddlers with me but in general, I tend to keep myself to myself because I had bad experiences with people in the past, so I'm fairly isolated in a way....

Yes.

...but I mean mum works at the hospital as well....

Oh does she.

....so its in the maternity unit so....

Oh that's very convenient.

So I've got to know quite a lot of people up there because I've been, I had, well, according to Dr Tew I don't suffer with it now, but I've had ITP....

Oh right.

...so during this pregnancy I had to be....

Watch you quite carefully.

Yes closely monitored so it was up the hospital for every appointment, seeing a doctor, you know Mr Sulman and Dr Tew, so it was very involved....

So it wasn't run of the mill sort of ante natal care either was it?

Well not, not really, lots of blood tests and you know....

Not with the GP so much.

It was good fun though!

(laughter)

So if you were at something like mothers and toddlers group, what would the topics of conversation generally be that you'd hear people talking about?

From what I remember it was more sort of what's the baby doing or moaning about the husband, you know, oh he's done this or that and not so much personal problems from what I remember.

Right.

But that was obviously....

A good while ago obviously.

10 years ago, 10/12 years ago.

That seems to be fairly standard, most ladies seem to say that but its interesting, in pregnancy if they're sort of mixing with people, they're talking about themselves then, the symptoms, the back ache and all the bits, the minute the baby's born, its all baby.

Yes.

And that seems to be, just about every one I've spoken to has said that.

I think that's and when I talk to you more don't I (step daughter) and I think that's more what I talk to you about isn't it, it's Katie and moaning about your dad and yes I mean, obviously working in the nursery in the school, they talk like, it's all like what they're doing in the holidays or where they're going on holiday and things like that.

Right, is it, yes, yes, so not. What about your personal health, what do you think about that, how high a priority is at the moment? Looking after you.

I come at the bottom of my list, I always do.

Right.

No matter what's going on in this world or in our lives, I'm always at the bottom of my own personal list...

Right.

...I'm at the bottom of it.

Why is that?

It's just me, I suppose I'm not selfish, I put everybody else first, I mean obviously Katie's a huge priority at the moment....

Yes of course.

....and, I do make time for myself, and Victoria helps me, we do shift swaps of feeding, you know if you do this for a little while, then I'll go and do this and then I'll come over and take over and you can go and do this and she's really good, she really helps me because my husband works nights....

Oh right.

....so he's not around in the evenings and so I'm here a lot on my own in the evenings.

Yes.

And she gets home late as well. Weekends I'm on my own but I've got mum and dad and obviously....

Right, so they live locally do they?

Yes, only 10 minutes away.

Oh fantastic.

It's quite handy.

Yes, you can go and see them, that's good. Do you feel any water works problems are acceptable, that you know, when you just have them because you've had babies?

No I do think you, no I mean it's not sort of oh well you're going to be like that because you've had X amount of babies, no that's not normal, because you wasn't like it before you had the baby.

Yes.

And things have to go back and you have to help yourself to make them go back and you know, I can't see that anybody would be happy having problems, I mean I know I'm not, so.

So are you doing your pelvic floor exercises since?

I am now.

Good.

(laughter)

No I've been making a conscious effort, because as I sort say after the first few, I mean she was ten weeks old this week and the first few weeks it was very painful...

Yes, yes.

....? Coming up and as I say, there was no cuts or tears but it didn't feel right and sort of tightening everything up was....

Stretched....

...quite painful...

...more probably.

Yes and I was suffering with the piles as well, really bad just before I had her and when, during the labour I was bearing down like at the back instead of the front....

Oh right on the piles.

Yes which made it even worse so I was suffering quite a bit, with like with the piles and...

Well that....

...that made it very painful to be able to do anything.

Yes.

So.

And when you first tried to do the pelvic floor exercises after you'd had the baby, could you actually physically do them in spite of the pain, could you actually do them anyway?

Well it didn't feel like I was doing anything.

No.

So I don't know if it was doing, so I mean I did try, I did like because you sort of have to because I just couldn't tell to begin with, I mean I know its all working now because I can feel it.

You can feel it now?

Yes, yes.

Did you have any written instruction about that at all?

Yes, I've got the leaflet from the hospital.

And that's quite clear and you feel you were able to do what they say?

Yes.

So how many times a day are you doing them?

At least twice at the moment because I sort of, when I get up I make sure I do it then.

Right.

And I remember to do it when I go to bed and I'm sitting down reading books now aren't I, Reading a book and I'm making sure that you know at some point, this is my time.

Right, right.

Right OK before I start reading this chapter....

Excellent.

It's just little reminders like because I'm terrible, as I say I put everybody else first and I forget about me but I know that I've got to start sort of thinking about me and for myself

and its like little gentle reminders just for myself you know, so a book means do the pelvic floor exercises.

Yes, good, that's fine, whatever works is great, it's fine. Because ideally you should be doing them about 10 times a day at least, really and what you need to do is do it religiously if you can 10 times a day for a while and see how you get on and if its not working you need to come back to us because you know, you're quite right, you shouldn't be putting up with that, it shouldn't be normal for you, so if it doesn't go away, come back.

Yes I will.

Because we can refer you to a hospital and they actually aren't very frightening up there, there's a lovely lady who does this sort of thing you know and there is help there and the problem is if we leave it until you're 50 odd and you've been doing it for quite a long time, it's much more of a problem to sort out. Now, you're much younger, hasn't been going on for too long, it can be sorted out, so don't accept it as normal and put up with it for long....

No.

...that is not normal now. So no problems with back passage at all, leaking from back passage, I mean for the piles but?

No not leaking but obviously with piles that's a little bit of a problem, you know it does get itchy and that sometimes makes it a mess, there's itching and you know sort of don't scratch it, don't scratch but you know sometimes....

It's hard isn't it?

....it still sort of leaks anyway and you have to run to the toilet just to try and relieve the itching you know, go to the toilet or wash yourself, put the cream round, so....

If you decided I'm going to do something about this, who would you see? GP or?

Probably first point of call would be the GP you know and take it from there.

Yes. Right, that's probably about it I think, anything else you can think of that might be relevant.

No.

Well we've covered most areas I think really. Is mum sort of seeking any help at all or?

I don't know about at the moment, she has in the past hasn't she? I think she's, apparently like both sides of it, the urinary problems and the back passage problems she's sought help for both because mum's a great one to glamorise things anyway and but I know she had to have a test to see how much water her bladder was holding.

Right yes.

She had that one done. She's also had one done where she's had air put up the back passage and sorted all that out hasn't she. I mean she's had a few like that because she

kept farting and she couldn't control it. *(laughter)* Well it had to come back out which she's had a few things done and it's just mum's like me, she doesn't like being fiddled about with, oh go away, leave me alone but you know she wants something done, I mean it was only last week and she said oh well, I'll have to see what I can do about this. I said that's why I'm sorting myself out, I said I don't want to be like you when I'm your age. Oh thanks a lot. I said no offence intended mum but you know I don't want to you know not be able to run around with the grandchildren so you know, I want to be able to enjoy my life and not have to worry about where can I go where there's a toilet which is like you. We went shopping to Asda, oh is there a toilet there, yes mum and she's straight in the toilet everywhere you go. I mean me and me dad, everybody moans at us don't they because we go before we go out. You know, so are we ready, yes, just got to go to the toilet. Me and me dad are always the same aren't we, we hold everybody up because we go before we go out and then when we get out, everybody's going, oh where's the loo, where's the loo. It's terrible isn't it.

Your mum's experience with tests and things at the hospital, would that put you off?

It does a little bit, yes, you know but when she's explained all the procedures that she's had and I think, oh no I can't be doing with that but obviously I might not have to have the same thing.

No, no.

But it's just, you know, sort of, someone to hold your hand....

(laughter)

You know it made me think, oh no, you wouldn't want somebody there holding your hand while you're having that done. No it does, because like I say, I'm a born worrier anyway so, some of the things that mum has had done and she's explained what, I couldn't do that, I couldn't face that. She does put me off a little bit. I don't know.

(laughter)

?????????well she's a bit more willing to talk, years ago, I mean when I was sort of only 18 when I ?

Are you really, crumbs!

Yes, so when I was her age and younger, mum wouldn't talk about anything.

No.

It's only really in the last, I think probably since I had James, my eldest one, that we've got closer, especially you know sort of talking about the babies and what you go through and being a mum and what it entails and as the years have gone on, we have got closer you know. Because we never used to be close, mum and I.

Really.

We were fighting like cat and dog.

Oh really.

But now we're fine, so at least ??????? everything and like that with me mum.

Oh that's nice.

Sometimes.

(laughter)

Right, OK I think that's probably it. Thank you very much. That was very useful. Its particularly useful to talk to someone who's had more than one baby because most of the other ladies I've spoken to have just had their first baby and their aim seems to be to get back to work, you know, haven't got time and all this sort of thing so its quite interesting to talk to you and your different experiences about each pregnancy.

I mean after having her, because my youngest son is with his dad. So we have to go down and pick him up every other weekend from London.

Right.

And it has been very much, my eldest son's quite vulnerable and he's got attention deficit disorder and so with problems we're having at school, especially in senior school, and it's like I planned it in me own head, give James my time, I'll get rid of her rather than push him out.

Right.

Because he'll always ? himself pushed out because of the baby so Mark has ended up having 3 weeks off work, because he does, like Mark works shifts, well he doesn't work shifts, he works the same hours, but he has different days off over 7 weeks and on the 7th week he has a whole week off.

Oh that's nice.

Well his week 7 tied in with when I had her, so he had his 2 week paternity....

Perfect.

And the week 7, had him at home for 3 weeks and then sort of, as soon as he went back to work and it's, I've got to get this done, I've got to get that done because he was getting so much done in the first 3 weeks for me and I was thinking I could keep up with that as well as make sure James was happy, get down to pick up Christopher, spend time Christopher, spend time with all the visitors, because we were just inundated with visitors in the first few weeks, because we've both got a big family haven't we and there's everybody that mum works with all wanted to, because they were all really involved with the pregnancy as well.

Of course because she works there.

Yes, so I did sort of....

Open house.

....went on the back, yes it was open house, but I really went on the back burner and thought you know, like the other ladies who've got to get back to work, haven't got time for me, get back to work and I was a little bit like that even though, not thinking I've got to get back to work but I'm a great one for housework and I've got to get it done every day, you know I mean that's normally me, when she's bigger I'll probably get her helping me.

Yes.

Marks already said he's going to buy her a Hoover and the duster, washing machine, iron.

Get her started eh?

**With these other two, ???? they were always out playing, it was always me that ???
Everybody you talked to out of the whole lot, ?????**

Oh was she?

Wont be happy this afternoon, she's got her first jabs. I've got the Calpol ready.

Oh dear. Bless. Right OK.