

Self-Care Strategies of Older Women with Urinary
Incontinence

by

Donna Goodridge

A thesis
presented to the University of Manitoba
in fulfillment of the
thesis requirement for the degree of
Master's of Nursing
in

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URINARY INCONTINENCE

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DONNA GOODRIDGE

A thesis submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
of the degree of

MASTER OF NURSING

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ABSTRACT

The purpose of this descriptive study was to examine the strategies employed by older women to manage the physical, social and emotional sequelae of urinary incontinence. Interviews were conducted with 26 women aged 50 to 75 who had undergone urodynamics testing at a large Winnipeg teaching hospital. Data were obtained using a series of questions based upon the concept of health deviation self-care requisites promulgated by Orem (1985) in her model of self-care. Theoretically-oriented content analysis was utilized to analyze the interviews. Each of the six health deviation self-care requisites served as a category through which appropriate themes were identified, discussed and exemplified.

The results indicate that most subjects were satisfied with the effectiveness of strategies to manage the physical sequelae of urinary incontinence. Serious concerns, however, were expressed regarding self-care involving psychosocial dimensions. The stigma of urinary incontinence created feelings of shame and embarrassment, loss of control, frustration and anger. Secrecy was the most commonly employed information management strategy.

Health professionals involved with clients who experience urinary incontinence will need to examine more closely the issues inherent in this health deviation in order to meet the needs of a group whose numbers will grow substantially in the coming years. The scarcity of health care resources makes investigation into means to assist those suffering from urinary incontinence a priority.

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It is good to have an end to journey towards, but, in the end, it is the journey that matters.

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Chapter I

STATEMENT OF THE PROBLEM

Urinary incontinence is an alteration in health which may be present to some degree in 45% of all females over age 18 (Yarnell, Voyle, Richards and Stephenson, 1981). Between 5.7% and 17% of the elderly living in the community are affected (Feneley, Shepherd, Powell and Blannin, 1979; Yarnell and St. Leger, 1980) with urinary incontinence, while the institutionalized elderly may have a prevalence rate of 53-80% (Yarnell et al., 1980).

Urinary incontinence is associated with high costs to both the individual and society. The person afflicted may spend large sums of money on absorbent garments and devices. The minimum annual cost of incontinence in Canada is estimated by Kirshen (1983) to be \$150 million for incontinent pads alone. The use of one low-cost sanitary napkin to contain urine on a daily basis per incontinent individual further raises the price tag \$43 million annually (Brink, Wells and Diokno, 1982).

On an emotional level, the literature indicates that the incontinent individual is at risk for depression, apathy and insecurity (Sutherland, 1976); decreased self-esteem, increased dependence on others and social isolation (Long,

1985). The physiological effects of urinary incontinence can be equally problematic. Increased incidence of skin breakdown with concomitant skin infections, a higher frequency of decubitus ulcers and a predisposition towards urinary tract infections (Yu, 1987) are reported with individuals incontinent of urine. It may be speculated that both the emotional and physical effects of incontinence contribute to the higher frequency of hospital admissions among incontinent elderly than is found in continent elderly (Shuttleworth, 1970; Yarnell et al., 1981; Vetter, Jones and Victor, 1981). No investigation has been undertaken to determine the effect of urinary incontinence on the general health or lifestyle of younger age groups.

While urinary incontinence has probably afflicted some proportion of individuals since the dawn of man, scientific knowledge about the means to assist, treat and cure these persons is still in its infancy. Because the incidence of urinary incontinence increases with age (Yarnell et al., 1979; Thomas, Plymat, Blannin and Meade, 1980; Vetter et al., 1981) and because Canada is a demographically aging country (McDaniel, 1986), the need for research into the various implications of urinary incontinence has become more pressing than ever.

In view of the fact that success in treating and managing urinary incontinence has been limited by a sheer lack of knowledge in the area (National Institute on Aging, 1981),

it is of importance to examine how individuals with urinary incontinence are able to manage this problem within the context of their daily lives. Fuchs (1974), the noted medical economist, suggests that the greatest potential for improving health lies in what we do and don't do for ourselves. A resurgent interest has thus been created in the cost-effective realms of health promotion, illness prevention and self-care.

Self-care is not a recently developed entity, but rather one which pre-dates the emergence of the formal medical system. Its' seemingly recent discovery is only a function of the contemporary assumption that health care is largely the province of professionals (Woods, 1985). Self-care, in a general sense, has been conceptualized by Levin, Katz and Holst (1979) as a process whereby a layperson functions on his/her own behalf in health promotion and treatment at the level of primary resource in the health care system. Orem (1980) views self-care from a nursing perspective in a somewhat different light. Self-care in Orem's framework is seen as the individual's own action that has pattern and sequence and when performed effectively, contributes to structural integrity, functioning and development. Goldstein, Zink, Stevenson, Anderson, Woolery and DePompolo (1983) assert that the implementation of a self-care framework in nursing practice can lead to healthier individuals, a healthier community, better utilization of

medical services, cost containment, demystification of the medical system, improved health care professional-patient relationships and more efficient use of resources.

Interest in promoting self-care in the incontinent has been fuelled by the recognition that an aging population will create new demands, possibly in the form of higher costs, on the health care system (McDaniels, 1986). Statistics Canada (1985) estimates that the percentage of elderly will rise substantially in the near future, from the present 9.7% to almost 14.7% in 2006. As Canada's population continues to age, a widening imbalance in the sex ratio will mean that elderly women predominate within this group. "The future of demographic aging in Canada, as in most demographically older countries, has a female face" (McDaniels, 1986, p. 111).

Older women's health issues are unique in several ways. There are more older women now than ever before who live increasingly longer than men, but they report more acute and chronic disability than men (Lewis, 1985). The experience of women as health care consumers is frequently marked by reports of neglect and disrespect. Datan and Lohmann (1980) suggest that this is the result of the societal double standard of aging; the stereotypical view of an older woman is one of dependence, passivity, incompetency and unattractiveness. Their chronic diseases, including urinary incontinence, are ignored or undertreated, as medicine tends to occupy itself with more acute conditions (Lewis, 1985).

Despite the high cost of urinary incontinence in both the economic and psychosocial senses, Resnick et al. (1985) believe that the aging victim of incontinence has been too long neglected in research. Much of the literature dealing with the subject has been the result of medical efforts, frequently with a prevalence orientation and pathophysiological focus. Nurses, who have long recognized the multiple difficulties imposed by urinary incontinence, are just beginning to conduct research in this area. For example, Taylor and Henderson (1986) have examined the effects of biofeedback on pubococcygeal muscle strength and on simple urinary stress incontinence. Robb (1985) has considered several means of verifying the amount and frequency of urine lost in an elderly male population. Yu (1987) has been a pioneer in examining the psychosocial implications of urinary incontinence. An investigation into the effects of urinary incontinence was attempted by Simons (1985). The implementation of continence clinics was reported upon by Brink et al. (1983) in the United States and by Badger, Drummond and Isaacs (1983) in Great Britain.

It is evident that little has been accomplished to illuminate the personal, social and environmental factors that play a role in self-care of incontinent women. Chang (1980) emphasizes that there is a need for nurses to evaluate the systems employed and the competence of individuals in managing their self-care. The present study

represents a beginning effort to examine self-care from this perspective.

The question to be researched in this study is

"What self-care strategies do older women employ to manage their urinary incontinence?"

The strategies identified by this study will assist health care providers to make more optimal use of the resources available in both the female client and her environment. It will be the role of nurses in the future to eradicate potential and extant barriers to self-care. This study will point out barriers that have been perceived to affect self-care. Application and further study of the themes identified by this investigation will promote a higher level of well-being and independence for incontinent women as nurses incorporate the findings into practice.

Chapter II

REVIEW OF THE LITERATURE

2.1 INTRODUCTION

There appears to be a general acceptance among both lay people and health care professionals that urinary incontinence is inevitable as one ages. Simons (1985), in a study of self-concept and incontinence, found that many elderly women perceive this problem to be a normal consequence of aging that required resignation. Evidence to the contrary is provided by Badlani and Smith (1984), who assert that incontinence is not an inevitable result of the aging process and neither is it acceptable in the elderly. In spite of the fact that 70% of the incontinent are "curable" (Willington, 1976), health care providers seem to have chosen to ignore and minimize this problem. Swaffield (1981) attributes this lack of progress in assisting the incontinent to lack of interest on the part of professionals.

The medical and nursing literature dealing with urinary incontinence that is relevant to this study can be categorized as follows: 1) historical perspectives, 2) definitions of urinary incontinence, 3) types of

incontinence, 4) studies of prevalence, 5) psychosocial implications of incontinence, 6) correlates of incontinence and 7) services for the incontinent. Each of these categories may play a role in determining the self-care strategies employed by older incontinent women.

2.2 HISTORICAL PERSPECTIVES

Although the problem of urinary incontinence has been addressed in the medical literature since the 18th century, little has been written indicating improvements in the management of this health problem. No concerted effort has been directed at assisting this group by any one discipline. This lack of attention may stem from the cultural devaluation of the elderly, and especially of older women, the groups in whom urinary incontinence is most prevalent. A further explanation for the relative lack of attention to the incontinent is that health care professionals may believe that urinary incontinence is a minor annoyance at worst and a natural consequence of aging in any case.

As long ago as 1749, Allen acknowledged the difficulties inherent in the management of urinary incontinence:

Children, or old people often piss a-bed in their sleep, but these come not to the physician for cure. It is a distemper very hard to be cured, when it happens to those who are awake; it is altogether incurable, unless hot baths relieve them, it is a bad sign in acute distempers.

Acceptance of the inevitability of urinary incontinence in the aged was also evident in the 19th century. "Irritability of the bladder is an affection from which few persons in advanced life are totally exempt" (Day, 1849, p. 3) It is of note that the author included urinary incontinence in a treatise discussing "the most important diseases of old age".

The first major studies of incontinence in this century were conducted in Britain by Sheldon (1948). It was not until the early 1970's that interest in studying this population re-emerged. Since then, a number of investigators have begun to examine the various dimensions of urinary incontinence. Their efforts will be examined in subsequent sections.

2.3 DEFINITIONS OF URINARY INCONTINENCE

One of the primary dilemmas confronting those interested in examining urinary incontinence is the lack of standard research definitions. Since its formation in 1961, the International Continence Society (ICS) has attempted to address this problem. Their focus, however, has been mainly the review of physiological and diagnostic terminology (ICS Committee for the Standardization of Terminology, 1981). Gilleard (1981) comments that the lack of standard definitions of urinary incontinence has been a major impediment to collating the data that is available.

A number of approaches to defining urinary incontinence are evident in the literature. Brocklehurst (1971) defined urinary incontinence as being present whenever an affirmative answer was received to the following question: "Does urine ever come away unexpectedly and without you being able to stop it and you get wet?" Milne, Williamson, Maule and Wallace (1968) and Milne (1972) also employed this definition in their investigations on prevalence. Such a question may create confusion in subjects for whom only part of the question is true. For example, an individual with stress incontinence may fully expect to lose urine when they cough, laugh or sneeze so that they cannot really provide a truly affirmative answer.

Vetter et al. (1981) inquired about the presence of urinary incontinence in the following manner: "Do you ever wet yourself if you are unable to get to the lavatory or when you are asleep at night or if you cough or sneeze?" This question provides the subject with a finite number of situations, but limits the ability to add other relevant circumstances in which incontinence may present itself.

Jewett, Fernie, Holliday and Pim (1981) in a Canadian investigation, defined incontinence in a manner which possibly reflects the attitude of health care professionals towards this health problem. Urinary incontinence is "the involuntary loss of urine [causing] a social or hygienic problem and [which is] objectively demonstrable". One might

question whether the loss of urine which does not cause a "social or hygienic problem" would be considered something other than urinary incontinence.

A broad definition appearing in more recent literature is "the uncontrolled leakage of urine, regardless of quantity or frequency" (Sullivan and Lindsay, 1984; Vehkalahti and Kivela, 1985). This definition is value-free, establishes that urinary incontinence to some unspecified degree is present and can account for the presence of urinary incontinence under a wide range of circumstances. Thus, this definition is probably the most useful to apply in studies where one is not concerned with frequencies or causality, as is the case with this investigation.

Similar problems with multiple definitions are also found in those studies which do attempt to quantify the relative severity of incontinence. For example, Isaacs and Walkey (1965) used a four-point scale to measure the amount of incontinence: not incontinent in the last 24 hours, incontinent once only, incontinent more than once, and doubly incontinent (feces and urine). By contrast, Carstairs and Morrison (1971) categorized subjects into groups of incontinent, occasionally incontinent, incontinent and doubly incontinent. Both of these studies have failed to specify the amount of urine lost at a given time. The latter study does not indicate what is meant by "occasionally incontinent". Methodological problems such as

these make cross-comparison of studies done on urinary incontinence at times difficult, if not impossible.

It is evident from the preceding discussion that researchers have not arrived at a standard format for eliciting data regarding urinary incontinence. Part of the difficulty inherent in investigating this topic is the embarrassing nature of the questions required (Yarnell, Voyle, Richards and Stephenson, 1981). Other investigators have pointed out that subjects may tend to be wary of the intimate topic under consideration and that the structure of the questions asked may have a direct bearing on the answer received (Vetter et al., 1981). Subjects may further feel the need to provide socially desirable responses to questions posed by health care professionals which may not reflect the true parameters of the problem.

In spite of the relative intimacy of the topic, response rates have been high in most studies, ranging from 70-95% participation (Brocklehurst et al., 1968; Yarnell et al., 1981). These rates appear to be rather exceptional in the realm of social research. A study using a smaller sample, such as that of Simons (1985), may be more apt to encounter lower response rates. Simons (1985) indicates a response rate of only 22%. This was attributed in part to the rather lengthy questionnaire format of the study.

It is thus apparent that the literature on urinary incontinence has been difficult to compare because of variations in the operational definitions. Possible reasons for the variety of definitions were discussed. It seems that in spite of the intimacy of the topic, response rates to studies have been excellent.

2.4 TYPES OF URINARY INCONTINENCE

It is important to examine the various types of incontinence because self-care strategies may be related to the specific causes and manifestations of urine loss. Urinary incontinence is the objective manifestation of a variety of pathological conditions.

While incontinence is not an entity unique to the aged, they would appear to be more predisposed to its development than their younger counterparts. Resnick et al. (1985) suggest that, although the data are admittedly sparse and inconclusive, the aged genitourinary tract varies from the younger system in a number of ways. Reductions are thought to occur in bladder capacity, ability to postpone voiding, maximal urethral pressure and urinary flow rates; increases may be present in the post-voiding volumes and uninhibited detrusor contractions. These factors, combined with the increased likelihood that the elder is being subjected to other pathological, physiological and pharmacological insults, leads to a higher incidence of urinary incontinence in the elderly than in the rest of the population.

Five types of urinary incontinence are generally recognized: 1) detrusor instability, 2) stress incontinence, 3) overflow incontinence, 4) functional incontinence and 5) iatrogenic incontinence (McCormick and Burgio, 1982). Williams and Pannell (1982) believe that the first three types are most prevalent in the elderly.

Detrusor, or bladder muscle, instability occurs when the muscle contractions are not inhibited. Although the intravesical pressure remains relatively constant as bladder volume increases, tension rises in the bladder wall musculature and primes it for contraction. Urine in the urethra sets off a feedback loop that enhances detrusor contraction. It is believed that some central disinhibition mechanism causes the external sphincter to relax so that normal micturition can take place (Kirshen 1983).

Detrusor instability appears to affect the majority of incontinent elderly persons. Overstall, Rounce and Palmer (1980) estimate the prevalence of detrusor instability at 57-58% in the elderly incontinent. Precipitating factors which may cause detrusor instability include CNS damage due to stroke, Alzheimer's Disease, brain tumor, Parkinson's Disease, inhibition of spinal pathways due to metastases, local bladder disorders, radiation cystitis and outlet obstruction (Resnick et al., 1985). These causes are often seen in the elderly.

Stress incontinence occurs when the urethra is not effectively closed off during transient pressure rises such as that evoked by coughing or sneezing (McCormick et al., 1983). This term refers to the involuntary loss of bladder contents due to structural alterations of the bladder outlet mechanism (Overstall et al., 1980), often attributed to stretching of the pelvic musculature during the course of multiple pregnancies. Overstall et al. (1980) report that stress incontinence affects only 2% of the elderly, but "this frequency seems low in relation to our experience" (Kirshen, 1983). Burton (1985) sets the rate of stress incontinence in the elderly as 35% of the total incontinence, but his claim is unsubstantiated.

Overflow incontinence refers both to the bladder that does not contract (atonic bladder) as well as to situations in which the periurethral muscles do not relax during bladder contractions (dyssynergia). Common etiologies of this type of incontinence in the elderly are prostatic obstruction and atonic bladder caused by advanced diabetic neuropathy (Burton, 1985). Atonic bladder is believed to be present in 7-11% of the elderly incontinent (Overstall et al., 1980). The frequency of dyssynergia is not known.

The concept of functional incontinence is also important when considering older incontinent individuals. Ouslander, Kane and Abrass (1982) define this as the inability of a person with a normal bladder and sphincter to reach the

toilet in time. Functional incontinence can also result from mobility problems, confusion and depression (McCormick et al., 1983). Burton (1985) believes that functional incontinence is common after the older person is admitted to an acute care hospital where he/she is unfamiliar with the changed environment and has difficulty dealing with bed rails and the distance one must travel to reach a toilet.

Iatrogenic incontinence refers to therapeutically-induced urine loss. Medications such as diuretics, sedatives, hypnotics and muscle relaxants may affect the mental alertness and physical agility required to maintain continence (Long, 1985). Incontinence may also result directly from trauma to genitourinary structures caused by surgical procedures such as radical prostatectomy. Indirectly, errors in surgical technique may create new channels for urine drainage, such as vesico-vaginal fistulae (Burton, 1985).

It is evident that the type of incontinence has a great deal to do with the manifestations of the symptom. One might speculate that when incontinence is fairly transitory, such as with stress or functional incontinence, different self-care strategies might be employed as compared to ongoing and constant incontinence.

2.5 PREVALENCE OF URINARY INCONTINENCE

Much of the initial data-gathering efforts in determining the prevalence of urinary incontinence occurred in a community setting. Sheldon (1948) described detailed history and physical examinations of 500 men and women in England. He established the prevalence to be 35% in women over the age of 60 and 23% in men older than 65. His findings indicate that prevalence appears to increase from middle to old age.

More current research on urinary incontinence in the community has been conducted by Yarnell and St. Leger (1979) who studied a random sample of 386 individuals residing in an elderly community. Their results indicate that the prevalence of urinary incontinence was 17% in women older than 65 and 11% in men of the same age. While the majority of individuals lived in the community, the prevalence of incontinence was higher among residents of old people's homes and geriatric hospitals (53% and 80% respectively). Yarnell et. al. (1979), in the second phase of their study, interviewed 388 men and women who were incontinent of urine to determine which factors might be associated with this problem. They specifically examined the occurrence of symptoms, accommodations, and the history of certain disorders (cerebrovascular disease, prostatic hypertrophy, ureterovaginal prolapse), hospital admissions and mean number of drugs per subject. Frequency distributions were

used to analyze the data. Their results indicate that the severity of symptoms appeared to increase with age. Individuals with daytime incontinence were more likely to reside in long-term accommodations. Significant relationships were demonstrated between hospital admissions and incontinence ($p < 0.001$) and between cerebrovascular disease and incontinence ($p < 0.02$).

Health care professionals long suspected that there exist far more incontinent individuals than those identified by health services. For reasons of embarrassment or perhaps a preference to maintain independence, some people may choose not to seek out the care offered through health services. Alternatively, individuals may be unaware of available resources offered by health services.

Feneley, Shepherd, Powell and Blannin (1979) examined the issue of hidden incontinence in more detail in their study comparing the prevalence of recognized vs. unrecognized urinary incontinence. The prevalence rate of urinary incontinence in those recognized by the health care system was 1% for all age groups. Through a mail survey and follow-up of 7,000 subjects, the researchers established a prevalence rate of 3.3% in males and 8% in females of all age groups. In the over 65 age group, the prevalence rate for males was 5.7% and for females, 13.9%. Their results indicate that urinary incontinence is far more prevalent than the health care system realizes.

A similar focus was adopted by Thomas, Plymat, Blannin and Meade (1980) of 22,340 persons aged 5 and older in Great Britain. Recognized incontinence prevalence rates were 2.5% in women and 1.3% in men older than 65. The actual prevalence identified in this study was 11.6% in women and 6.9% in men who were in the over 65 age group. Nulliparous women had the lowest prevalence of urinary incontinence, with an increased prevalence evident in women who had one, two or three babies. While these groups were similar in terms of prevalence of urinary incontinence, a significant increase was documented in those who had had four or more babies. This is generally attributed to the weakening of the pelvic musculature through the course of multiple pregnancies. One of the most interesting aspects of this particular study was that while one-fifth of subjects reported a moderate to severe degree of incontinence, less than one-third of these same individuals were receiving social services of any type.

Yarnell, Voyle, Richards and Stephenson (1981) randomly selected 1,060 women over the age of 18 to act as subjects in their study of prevalence and severity of urinary incontinence in females. 45% of all subjects reported some form of urinary incontinence. In most, the symptoms were both small in amount and infrequent in character. Five per cent of these subjects experienced a loss of urine sufficient in volume to necessitate a change of clothing.

Although 3% of all incontinent women reported that incontinence interfered with their social and domestic lives, only half of this group had sought assistance in dealing with the symptoms. The authors speculate that the reluctance to seek help may arise from differences in threshold in dealing with the symptoms, reluctance to discuss the symptoms and a low expectation of benefit.

Vetter et al. (1981), whose study is discussed in greater detail in the subsequent section, established prevalence rates of 7.3% for men older than 70 and 18.1% for women of the same age.

The methodological schemes of the research on prevalence appear to be sound. Sample sizes ranged from 396 to 22,340. Statistical tests used were appropriate to the data. The studies on prevalence of urinary incontinence are a good beginning to ongoing research in this area.

2.6 PSYCHOSOCIAL IMPLICATIONS OF INCONTINENCE

Western society places a high value on youth, cleanliness and health. Because urinary incontinence is stereotyped as an affliction of the aged (a devalued group), the woman who suffers from incontinence is at risk for being labelled, or labelling herself, less than acceptable. This labelling can, in turn, lead to negative psychological effects. The following sections will examine the psychosocial implications of incontinence.

2.6.1 Psychoanalysis and Urinary Incontinence

The complete or partial loss of voluntary bladder control may be analyzed from a psychoanalytic perspective. As infants, the bladder functioned automatically. As one grew older, she was trained to identify acceptable places in which to void and to control elimination until arriving at that place. Freud (1969) postulated that familial love and social acceptance are intimately tied to successful toilet training. Inability to maintain control over voiding in adulthood may be linked to feelings of embarrassment, fear of loss of significant others' love and loss of control (Millard, 1986). Such feelings negatively affect the concept of self.

2.6.2 Urinary Incontinence and the Self

Health professionals have long recognized a relationship between urinary incontinence and negative psychological effects. Wilson (1948) stated that urinary incontinence "implies an indignity to the social integrity of the individual". Persons suffering from incontinence experience lowered self-esteem and self-confidence, ultimately resulting in both physical and psychological decline and social disengagement (Spiro, 1978).

Yu (1987) has been one of the first to systematically examine the psychological impact of urinary incontinence.

As part of a National Institute on Aging study looking at the cost-effectiveness of bladder training in nursing homes, Yu (1987) has developed an Incontinence Stress Index (ISI). This was pilot-tested on 30 individuals with urinary incontinence. Most of the subjects were white females over 75 who had been nursing home residents for one to six years.

Four groups of factors were used as a basis for the questionnaire: agitated-depressive symptoms, retarded-depressive symptoms, feelings of abandonment and somatic concerns and activities related to urinary incontinence. The results of the pilot study indicate that within this group, many patients reported depressive symptoms because of their urinary incontinence: 93% of subjects felt they were bad, 86% blamed themselves for the problem, 79% felt that they were burdens and felt guilty about their incontinence. A further 93% perceived that they were isolated by others, while 75% felt they were burdens to family and nursing home staff alike. 96% believed that they were being punished by staff and isolated themselves. Avoidance by staff was reported by 89% of the respondents. 80% considered themselves irritable as a result of the incontinence.

Because this pilot study was used to test the ISI, no control group of continent elderly was available with which one could compare symptoms. It is impossible to state that these psychological symptoms were associated with incontinence alone as the subjects' residence in a nursing

home implied additional health concerns. Yu (1987) admits that the small sample negates the generalizability of the findings. Her results, however, support previous experiential and anecdotal accounts regarding the psychological sequelae of incontinence.

Vetter et al. (1981) sought to define the relationship between urinary incontinence and physical, social and mental disability. Physical disability was measured using a series of standard questions developed by Townsend (1981). Measures of anxiety and depression were estimated using a questionnaire designed to test mental disability. No indication was provided as to the means by which social disability was measured, although the results indicate that subjects were probably verbally questioned about the degree of contact with family and friends. Self-reports of the amount of urine lost allowed classification of the subjects into groups of "daily or more", "less than daily" or "none".

While a negative relationship was reported between urinary incontinence and mobility, a direct relationship existed between urinary incontinence and contact with relatives ($\chi^2=70.7$, $p < 0.001$). Statistically significant relationships were also reported between anxiety/depression and degree of incontinence.

Vetter et al. (1981) employed a sample size of 1342 subjects, making it likely that the relationships described are representative of the population.

Simons (1985) examined the relationship between self-concept and incontinence in a sample of 43 elderly women residing in a mobile home retirement community in the United States. Comprised of three parts, the initial questionnaire sought to elicit demographic data. Self-concept was measured using the Rosenberg Self-Esteem Scale, while the presence of urinary incontinence was assessed via an instrument developed by the author. Simons' hypothesis that negative self-esteem would result in hiding the symptom of incontinence was not supported. No statistically significant difference was found between self-esteem in the incontinent and continent groups. Of interest is the fact that 50% of the responding subjects accepted urinary incontinence as part of the aging process and did not feel it was a great problem.

Simons (1985) admits that a low response rate (22%) in a small sample makes accurate interpretation of the findings difficult. A worthwhile enterprise as follow-up to this study is examination of self-esteem in middle-aged continent and incontinent women.

2.6.3 The Stigma of Urinary Incontinence

Because urinary incontinence is a problem which contravenes the norms of cleanliness and control, it may be examined from the viewpoint of stigma. Goffman (1963) identifies stigma as an attribute discreditable to one's

personal identity. Urinary incontinence can be conceptualized as a physical disability which can impact on the fulfillment of normal activities of daily living. Because it is not readily apparent, it is thus a potentially stigmatizing attribute (Goffman, 1963). Possession of a discreditable attribute weighs heavily and shamefully upon one's definition of self, regardless of whether others have knowledge of the problem or not. The anecdotal literature on incontinence (McCormick and Burgio, 1984; Long, 1985) suggests that embarrassment and low self-esteem are in fact associated with incontinence.

The stereotype that incontinent persons are old and senile makes this health problem difficult to acknowledge and discuss with others. Glew (1986), in a mail-in survey of readers of the British Woman magazine, reports that many respondents were too ashamed to talk about urinary incontinence. One in three women never mentioned their incontinence to their husbands. Thirty-eight per cent of respondents found it "not very easy" to discuss this problem with family and friends because it was too embarrassing. One in five respondents was too ashamed to speak about incontinence to others, while the same number were too worried about what others would think if they revealed their urinary problems.

Glew's (1986) findings about the relatively secretive nature of those suffering from urinary incontinence fit well

with the suggestion by Schneider and Conrad (1980) that persons with "stigma potential" engage in information management. Miall (1986) suggests that those with "stigma potential" do not reveal the exact nature of their condition to others to avoid being perceived in a negative light.

Schneider et al. (1980) examined information control in epileptics. They found that, for those who possess some discreditable feature of self, the attempt to control information is a major strategy used to avoid undesired consequences. Information about the condition is very selectively disclosed or withheld. As may be the case with urinary incontinence sufferers, epileptics "have" something that others don't understand. This lack of understanding is a source of actual or potential negative reactions. It is probable that, with both epilepsy and urinary incontinence, the information and views held by the general public are incorrect and stereotypical.

A number of specific information management strategies were identified by Miall (1986) in a study of persons who were involuntarily childless. Nearly half of the physically infertile women in the study found it difficult to disclose to family and friends that they were having trouble conceiving. This difficulty in telling others was linked to feelings of inadequacy and shame.

Three strategies identified by Miall (1986) to manage potentially stigmatizing information about oneself included: (a) selective concealment, (b) therapeutic disclosure and (c) preventive disclosure. Selective concealment is a strategy based on the subjects' perceptions of others as trustworthy or likely to make them uncomfortable. Most subjects were initially secretive about their condition, but this was later replaced by a form of disclosure as subjects became more comfortable dealing with the issues of infertility.

Miall (1986) defines therapeutic disclosure as the selective disclosure of the discreditable attribute to a few others in order to enhance self-esteem or renegotiate personal perceptions of the negative attribute. This differs from preventive disclosure, where the aim is to influence others' attitudes about one's self or the attribute. Respondents used strategies such as medical disclaimers ("beyond my control"), deviance avowal (actually seeking the label) and practiced deception (admitting to the attribute, but distorting or altering the circumstances contributing to the problem).

While it is beyond the scope of this study to engage in detailed analysis of the information management strategies of women with urinary incontinence, the concept of stigma provides a useful basis for examining the manner in which subjects deal with urinary incontinence on an interpersonal level.

2.6.4 Urinary Incontinence and Sexuality

The development of urinary incontinence has been linked to the process of giving birth by many lay persons and health professionals. Fifty-seven per cent of the respondents in Glew's (1986) survey blamed their incontinence on childbirth. One in four stated that urinary incontinence began while they were pregnant, while the remaining subjects found they were incontinent of urine following delivery. Montgomery (1986) suggests that urinary incontinence is far more common in Western women who do not receive training in exercising their pelvic muscles than in their Eastern counterparts, who are taught the use and control of the perineal and urethral sphincter muscles.

Glew (1986) found that it was the effect of urinary incontinence on their sexual life that was the most frustrating of complications for the respondents. Women expressed embarrassment explaining the problem to a lover. Accidents occurred during intercourse for some women. A few of the respondents even blamed urinary incontinence for being the cause of marital break-up.

Glover, Thomas, North and Meade (1986) studied urinary symptoms in 252 patients with neurologically induced bladder disorders and the relationship to sexual difficulties. Forty-eight per cent of the patients with multiple sclerosis and 63% of patients with other neurological diseases

reported difficulties with intercourse. Sixty-four per cent reported difficulties severe enough to prevent intercourse entirely, although only 7% attributed it to bladder problems alone. The lack of a control group and the presence of concomitant neurological problems make it difficult to generalize this study to the average woman with urinary incontinence. The authors, however, believe that the healthy response rate (75%) to the sexual section of the questionnaire indicate that those with urinary symptoms are ready to discuss issues pertaining to their sexuality.

2.7 CORRELATES OF INCONTINENCE

In general, the prevalence of urinary incontinence appears to increase with age (Yarnell et al., 1979; Thomas et al., 1980; Vetter et al., 1981). This trend is attributed to the effects of aging on the urinary system combined with exacerbating factors such as an increased likelihood to be subject to the effects of medications, an impaired sensorium and other pathology (Badlani et al., 1985; Long, 1985; Resnick et al., 1985). Some investigators (Brockelhurst, 1968; Milne et al., 1971) dispute that prevalence increases with age. The discrepancy between these two camps of researchers is likely the result of difference in operational definitions in the studies. Issues of definition have already been discussed.

While many researchers have found a higher prevalence of urinary incontinence in the elderly female as compared to the elderly male (Thomas et al., 1980; Vetter et al., 1981), this finding is also a source of contention. Yarnell et al. (1979) and Vehkalahti et al. (1985) were unable to establish a significant sex difference in prevalence rates.

Julian (1985) points out that incontinence in females is often automatically judged to be stress incontinence brought on by child-bearing and/or relaxation of pelvic musculature secondary to aging. Quigley and Harper (1985) examined 1439 Canadian women referred for urodynamic testing over a five year period in an attempt to summarize the descriptive epidemiology of urethralvesical dysfunction and to analyze the association between demographic, clinical and investigative data. Fifty-seven per cent of the subjects had a history of previous gynecological surgical procedures, 46% of these intended to treat urinary incontinence. In the sample, obesity (greater than 2 standard deviations above the norm) was seen in 31% of subjects. Twenty-nine per cent were currently using medications with neuropharmacologic effects; 11% were using tranquilizers. Examining the data for possible predictors of urethral-vesical dysfunction, the investigators used cross-analysis studies of the symptoms. They were able to arrive at only two symptoms with adequate predictive validity: nocturia and urgency without incontinence.

Yarnell et al. (1982) suggested that in females, urinary incontinence may be related to obesity, parity, prolapse, neuroticism and use of psychotropic and diuretic medications. These suggested correlates appear to be based on the authors' clinical experience and not supported by research findings.

Brocklehurst, Andrews, Richards and Laycock (1985), in examining the correlation between incontinence and cerebrovascular accidents in 135 male and female patients, discovered that 75% were incontinent of urine in the two weeks immediately following the stroke. By six months, incontinence had stopped in 80% of these individuals. Twenty per cent of the original incontinent patients were still incontinent at the end of one year. Of the 78 subjects who had been continent at the end of one year, 52 had always been continent, but surprisingly, 26 had been incontinent before the stroke but became continent. The incidence of incontinence rose to 23-24% in the second and third years following the stroke, but in the fourth year dropped to 14%. Combined urodynamic and CAT scan studies of the 20 patients with incontinence demonstrated 17 with urodynamic abnormalities. 15 of this group had dominant hemisphere strokes.

It appeared to the investigators that frontal lobe lesions produced uninhibited bladder contractions, while parietal and basal ganglion lesions caused both uninhibited

bladder contractions and loss of voluntary sphincter control. The results indicate a positive correlation between incontinence and abnormal tone and picture abnormality ($p < 0.001$) and a negative correlation between incontinence and activities of daily living ($p < 0.001$). No relationships could be identified between incontinence and sex, history of stroke and hemisphere of stroke.

While there remains controversy regarding some of the proposed correlates of urinary incontinence, it appears that gender, parity, age and neurological pathology may influence the appearance and course of this health problem.

2.8 SERVICES TO THE INCONTINENT

Health care professionals display a wide range of responses to the challenge of managing urinary incontinence. Starer and Libow (1985) found that while nurses listed incontinence as a problem in 62.6% of the sample's charts, physicians listed incontinence as a problem in only 10% of these same individuals. Perhaps because physicians are not involved in the hygienic care required by the incontinent, they are not as likely to consider it significant. Older persons living at home with urinary incontinence must contend not only with the personal hygiene demands created by this health problem, but must also work through means of dealing with both psychological, social and physical ramifications of incontinence. This task is infinitely more difficult than that faced by any health care provider.

Over the past few years, the public has in fact begun to identify urinary incontinence as a major health concern. Over 35,000 people reading "Dear Abby" wrote for a copy of the self-help bulletin, "Help for Incontinent People" (The HIP Report), after discovering that resources were available. "Thousands told stories of shame, embarrassment, isolation or restricted activities and financial hardships caused by the expense of absorbent products and devices (Jeter, 1984, p. 1). This particular example illustrates not only the magnitude of the problem, but also the fact that the incontinent are seeking assistance in large numbers to more effectively deal with the problem.

In spite of the growing awareness among consumers that urinary incontinence is a health problem requiring immediate intervention, the management of urinary incontinence has been largely ignored by health care professionals (Shepherd, Blannin and Feneley, 1982) and services poorly developed (Vetter et al., 1981). Thomas et al. (1981) state that there is considerable scope for improving the management of incontinence through the provision of effective services. Attitudes of health care professionals and the public in general must be modified to accept and promote development of knowledge in this area.

The traditional management of the incontinent individual has consisted largely of the utilization of catheters and diapers (Timm and Krane, 1982; Starer et al., 1985). The

drawbacks of the indwelling catheter are well-recognized and include limited mobility, predisposition to infection and the need for ongoing supervision by professionals (Timm et al., 1982). Beber (1980) suggests that the use of diapers places the patient at risk for skin irritation, requires frequent changes, creates unpleasant odor and further involves the psychological stigma of wearing a diaper. Neither catheters nor diapers seems to provide a viable long-term solution for all patients.

Research by Starer et al. (1985) indicates that 78.2% of all incontinent individuals in a New York nursing home were treated with diapers; indwelling catheters were used in 40% of cases. These investigators believe that such management methods overlook appropriate diagnostic and therapeutic interventions directed towards either the specific etiology of the incontinence or towards its pattern of presentation. They suggest that the time has come to seek new means of assisting and treating incontinent individuals.

Innovations in this particular area have been occurring over the past several decades, largely the result of British efforts. Hamilton, Badger, Drummond and Isaacs (1985) report that an incontinence nurse advisor was added to health district staff. The main responsibilities of the advisor were to advise on the management of incontinent patients both at home and in the hospital and further to educate health professionals. Goals for the advisor

included the reduction or elimination of incontinence, improvement of the management of existing incontinence, marshalling of all required resources and making referrals to the primary care team. Practice components of this role largely involved assessment, practical advice, provision of supplies and recommendations for environmental changes, exercises, physiotherapy and bladder retraining.

In evaluating this service, the authors were unable to conduct a randomized, controlled trial for ethical and practical reasons. Ethically, they believed it unjust to conduct such a trial, identify those who needed the service and then withhold the service for research purposes. Practically, it was felt that a controlled study would take too long to complete. In addition, it was feared that general practitioners would not refer patients to the service if they knew there was only a 50% chance of the service being received. Instead, the authors chose to undertake a before and after study of referred patients and then to compare results with a group of comparable patients from a neighboring health district not covered by the service.

Hamilton et al. (1985) discuss the lack of objective criteria by which a change in continence could be measured in a community setting. Their ultimate decision was to use two measures to assess the degree of incontinence: a) frequency of changes of clothing or pads necessitated by an

incontinent episode and b) the opinions of the sufferer, his helper and the nurse involved. These two criteria were sought to determine whether incontinence or its management had changed as a result of the service.

Patient reports indicate that incontinence had been reduced or cured in half of the group. Similar rates were obtained when the ease of managing incontinence was measured. The study also found that the duration of incontinence was inversely related to perceived improvement. The longer an individual had been incontinent, the less improvement was perceived. This result may be of importance in scheduling interventions with the incontinent elderly.

A second British report of a service to the incontinent is provided by Shepherd et al. (1982). A nursing continence clinic was established to provide patients with assistance in their immediate difficulties with urinary incontinence. The specific mechanism of bladder dysfunction assumed secondary importance in this clinic. Because this study was organized as part of a larger Medical Research Council study into incontinence, diagnosis was left to other participants. Patients were provided with appropriate management techniques until their problem could be diagnosed.

No formal evaluation of this program was attempted. The authors, however, state that "the positive attitude towards promoting continence has been the largest contribution

made... Men and women can remain independent but supervised in their homes" Shepherd et al., 1982).

Continence clinics are becoming more common in North America. The Journal of Enterostomal Therapy lists three: University of Michigan, Abbott-Northwestern Hospital, Minneapolis, Minnesota and the private nursing practice of Dr. K. Jeter in Union, South Carolina.

The experiences of the University of Michigan Continence Clinic are documented in the literature by Wells, Brink and Diokno (1983). The clinic began in 1981 with a focus on attaining continence through combined nursing and medical efforts. Close liaison between nurses and urologists is maintained. Nursing involvement in the clinic includes initial history taking and assessment, suggestions for environmental and temporal alterations and participation in the administration of the urodynamic tests. No formal evaluation of the program was attempted in this report.

While a number of programs to assist the incontinent have been initiated, the fact that they are still in their infancy makes it difficult to assess important factors such as cost-effectiveness, efficacy and patient satisfaction. Much work remains yet to be accomplished in the areas of services to the incontinent.

2.9 SUMMARY

The literature dealing with urinary incontinence suggests that the elderly, and especially elderly women, may be at risk for developing this health problem as a result of physiological changes associated with aging and pathology. Research into this topic has been predominantly prevalence-oriented, with minimal focus on the strategies used by incontinent individuals. The studies conducted have generally been methodologically sound, although difficulties standardizing the operational definitions of incontinence have created the inability to effectively compare results between studies. The recognition by both health professionals and the public of incontinence as a significant health problem has led to the inception and growth of services geared towards assisting these individuals. A general consensus exists that much remains to study about the phenomenon of urinary incontinence and its management.

Chapter III

CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

The holistic approach advocated by nursing begins with a focus on individuals, their interactions with the environment and how the environment affects their health and wellness. Chang (1980) believes that this holistic approach, geared towards those persons who have assumed a considerable amount of responsibility for their own health care, such as recognition of symptoms and management of selected health problems, is often referred to as 'self-care'.

A number of conceptual models use the notion of self-care as a basis. Levin, Katz and Holst (1979) suggest that self-care is a process in which a lay person functions as the primary health resource. Green (1977) describes self-care as the consumer performance of activities traditionally performed by providers. Nursing has also contributed to the self-care movement through the work of Dorothea Orem.

Orem's self-care theory (1985) has been selected for use as the theoretical framework in this study because of its emphasis on individuals as active agents in control of their

lives and its attention to universal and therapeutic requisites. This study identified the self-care strategies employed by older incontinent women, using the theory of self-care to provide guidance to the direction of research.

3.2 OREM'S SELF-CARE MODEL

Orem's theory of nursing (1985) is comprised of a number of theoretical constructs: therapeutic self-care demand, self-care deficit, self-care, self-care agency nursing systems and nursing agency. A number of these constructs will be examined in terms of their elements and the available research on the construct. The primary focus will rest upon the construct of self-care as it is most relevant to this study. Conceptualization for this study takes place within the theory of self-care, and thus this theory will be discussed in more depth.

3.2.1 Therapeutic Self-Care Demand

Self-care requisites, in Orem's framework, are the purposes to be attained through the kinds of action termed self-care. The totality of self-care actions to be performed for some duration of time in order to meet self-care requisites is termed the therapeutic self-care demand; it is essentially a prescription for self-care (Orem, 1985). Through investigation, one may be able to arrive at a calculation of the therapeutic self-care demand for a given

incontinent older woman. This study will assist in this endeavour as the self-care demands will be evident in the self-care strategies subjects select.

3.2.2 Self-Care Deficits

The construct of self-care deficit constitutes the core of Orem's general theory of nursing. She states that "people can benefit from nursing because they are subject to health-related limitations... that render them incapable of continuous self-care...or that will result in ineffective or incomplete self-care" (Orem, 1985, p. 27). A self-care deficit arises when therapeutic self-care demand exceeds care abilities. Nurses should be involved in both existing and potential self-care deficit situations. At this point, little research has been undertaken in the area of self-care deficits.

3.2.3 Self-Care

The self-care theory involves the relationship between the deliberate self-care actions of individuals and their own development and functioning (Orem, 1985). Self-care is the practice of activities that individuals personally initiate and perform on their own behalf in maintaining life and well-being (Orem, 1980). For incontinent older women, this may include hygienic practices, changes in social and work activities and follow-up with health professionals.

The ability to perform self-care is influenced by the client's developmental state, age and state of health. In the case of older incontinent women, factors such as attitudes, knowledge and available resources were speculated to be significant forces in determining which self-care strategies they chose.

Orem (1985) further distinguishes self-care requisites as universal, developmental or related to health deviation. The universal self-care requisites are relatively stable and include the demand for air, water and food, activity and rest, elimination and social interaction. Developmental self-care requisites arise from processes or events. Changes in health status can create new demands on the individuals. It is these new health deviation demands arising from urinary incontinence with which this study is concerned. Woods (1985) states that there is a need for careful description of both the self-care measures used by women and the variety of measures women employ for specific types of symptoms. The premise of this study is in keeping with this suggestion.

Specific suggestions are made by Orem (1985) about the manner in which self-care requisites in health deviations may be altered. She sets forth six categories of requisites:

1. Seeking out and securing medical assistance when there is evidence of a physiological condition known to produce human pathology
2. Being aware of and attending to the effects and results of the pathology
3. Effectively carrying out medically prescribed diagnostic, therapeutic and rehabilitative measures directed at the pathology or to compensate for disabilities
4. Being aware of and attending to or regulating the discomforting or deleterious effects of medical measures prescribed by the physician
5. Modifying the self-concept in accepting oneself as being in a particular state of health and in need of specific forms of health care
6. Learning to live with the effects of the pathology and the effects of medical care in a lifestyle that promotes continued personal development

These health deviation self-care requisites provided the framework for examining the research question, "What self-care strategies do older women employ to manage urinary incontinence?"

Woods (1985) examined the universal and illness-related self-care activities employed by young adult married women. A daily health diary was kept for a three week period by 96 women who were registrants at a family health centre. In

the diary, women reported their regular health care, symptoms experienced each day and their self-care response.

The family health diary format was developed by Roghmann and Haggerty (1972). Woods (1985) coded the responses and analyzed them for frequency distributions. The results indicate a rich variety of self-care activities. Vitamin use accounted for half of all self-care activities, while contraceptives and prescription medications accounted for 22% and 16% respectively. Other activities reported included alteration of activity, consulting health professionals, dietary alteration, home remedies, prayer, meditation and several others. Woods (1985) concludes that women cope with symptoms in ways that reflect a deliberate rather than a random approach to the problem. Although only a small proportion of symptoms reached the attention of health care professionals, women often used other self-care measures in conjunction with measures suggested by professionals.

Woods' (1985) conclusions have relevance for studying the selfcare strategies used by elderly incontinent women. First of all, one can anticipate a wide variety of responses within and between individuals in managing symptoms of incontinence. Secondly, elderly women are probably likely to employ strategies in addition to those known to or suggested by health professionals.

3.2.4 Self-Care Agency

The ability to engage in self-care is termed self-care agency. Self-care agency can be influenced by many factors, both intrapersonal and extrapersonal. Orem (1985) believes that reviewing self-care agency is critical to client assessment; one must examine self-care habits, appraise the benefits from self-care as currently practiced, recognize the need for, and assist the client to become more knowledgeable about other self-care practices. With the onset of urinary incontinence, older women may discover their own self-care agency to be inadequate for any number of reasons. Health care professionals are often called in at this point. Nurses involved with older incontinent women need to closely examine facilitators and hindrances to self-care agency in this context.

3.2.5 Nursing Systems

Orem's construct of nursing systems is defined in relation to the previous two theories. Backscheider (1974) states that the relationship is as follows: self-care demand sets the requirements for self-care activities; a deficit in self-care establishes the need for nursing; and the quantity and form of nursing is determined by the nature of the deficit.

Backscheider (1974) employed all three of Orem's constructs in her examination of a diabetic nurse management clinic. Specifically, her purpose was to examine one aspect of self-care agency (patient capability) essential to that portion of therapeutic demand associated with diabetes. She subsequently delineates the limitations of capabilities on the patient and on the type of nursing system (wholly compensatory, partially compensatory or supportive-educative) that was required.

In order to assess the diabetic-related component of self-care, Backscheider (1974) described some of the components of the therapeutic regimes used in the clinic. Self-care was delineated in terms of responsibilities such as those related to the condition (eg. urine testing), those related to the effects of the condition (eg. skin care), those related to the therapy (eg. insulin administration and those related to the effects of the therapy (eg. monitoring skin at injection sites).

Based on the individual capabilities of each patient, Backscheider (1974) stresses the importance of assessing whether or not self-care is being met. Nurses must design different systems of interventions depending on the relationship between capabilities and self-care demand.

Backscheider (1974) has developed a model which shows promise for application in situations where clients are

receiving specific therapy for health problems. In the case of older incontinent women, her framework would not prove very functional due to an anticipated absence of specific therapies. It is also difficult to specify what patient responsibilities would be in relation to the condition at this point.

3.2.6 Nursing Agency

Orem (1985) defines nursing agency as "wholly compensatory", in which the nurse performs self-care activities for the client; "partially compensatory", in which both the nurse and the client share the responsibility for performance of self-care activities; and "supportive-educative", in which the nurse provides support, advice and information to the client who independently performs self-care activities. Within the context of this study, the supportive-educative role most closely defines the role of the nurse.

3.2.7 Conclusion

Examination of Orem's (1985) theory of self-care and the limited research which has been conducted using it as a framework indicates that the construct of self-care suits the purposes of this study well. The specific suggestions made by Orem (1985) regarding health deviation self-care requisites in health deviations were incorporated into the

interview schedule and the data analysis technique used to examine the self-care strategies of older incontinent women.

Chapter IV RESEARCH DESIGN

4.1 INTRODUCTION

It is evident from the review of the literature that little is known at this point about the strategies used by older women in dealing with urinary incontinence. Therefore, it is not only sufficient, but also necessary to conduct this study at the first level of scientific inquiry, that is, at the factor-searching level. A factor searching study looks for ways to categorize, conceptualize and classify situations about which little is known (Diers, 1979). The question to be examined by this study was

"What self-care strategies do older incontinent women employ to manage their urinary incontinence?"

There are a number of research techniques designed to elicit qualitative data from subjects. In this study, open-ended questions in a taped face-to-face interview allowed for the development of conceptualizations and themes regarding the self-care of older women. The use of techniques such as the interview is invaluable in exploring new areas of knowledge, discovering phenomena in context and

providing the opportunity to directly observe, confirm and clarify data (Polit and Hungler, 1985).

4.2 DEFINITION OF VARIABLES

Urinary incontinence, the major variable of this study, can be both conceptually and operationally defined as the "uncontrolled leakage of urine, regardless of amount or frequency". Urinary incontinence was taken to exist when the subject affirmatively responded to question six of the interview schedule (Appendix A): "I believe that you have experienced some difficulty controlling the flow of urine. Can you describe for me some of the symptoms you have experienced?"

Self-care has been conceptually defined as "those activities performed by the individual which contribute to structural [physiological] integrity, functioning and development" (Orem, 1985). Operationally, self-care was defined as any activity which is designed to deal with the manifestations of urinary incontinence (eg. wetness, odor) or with resultant health problems (eg. skin irritation, fear of embarrassment). Data on self-care strategies were obtained through the use of the interview schedule (Appendix A), questions six through fourteen. For example, one question inquires: "What effect does the uncontrolled leakage of urine have on your everyday activities?"

For purposes of this study, older women were defined as those between the ages of 50 to 75.

4.3 SUBJECTS

4.3.1 Target Population

The target population for this study was older women residing in Manitoba who had experienced any degree of urinary incontinence for a minimum of three months. This population was selected because of the higher prevalence of urinary incontinence in the older age groups (Yarnell et al., 1979; Thomas et al., 1980, Vetter et al., 1981) and especially in elderly women (Thomas et al., 1980; Vetter et al., 1981; Julian, 1985). Older persons have also become a group in whom the identification and facilitation of self-care activities is a priority. The minimum period of three months was selected in order to allow for the development of self-care strategies.

4.3.2 Sample

The study sample consisted of thirty 50 to 75 year old English-speaking women residing in Winnipeg who have had symptoms of urinary incontinence for at least three months. Criteria for exclusion from the study included confusion/mental impairment, aphasia and fecal incontinence. The former two groups were excluded as a result of the verbal nature of the interview process. The latter group

was excluded as the management of fecal incontinence is believed to involve different self-care strategies.

The sample was selected through an accidental, non-probability sampling technique based on referrals from the Urodynamics Lab at the Health Sciences Centre. The nurse employed in the Urodynamics Lab assessed the eligibility of patients to participate in the study based on the sample criteria, and provided each with a verbal and written Explanation of the Study (Appendix C). She then recorded the names and telephone numbers of those women willing to participate and passed these on to the researcher. Each potential subject was contacted within two weeks of receipt of the referral by phone to determine her willingness to participate in the study. Written consent (Appendix B) was obtained prior to the commencement of the interview.

This setting was chosen because of the heterogeneity of the group of women receiving urodynamic assessment at this facility. Furthermore, this setting was appropriate because many of the older women likely to be seen were not necessarily receiving home nursing services as a result of general ill health or specific health dysfunctions. It was recognized that members of the group receiving nursing service would also comprise part of the sample, but it was felt that such a mix contributed to the "richness" of the data obtained. Diers (1979) points out that samples for factor-searching studies should be guided by the principle

of "richness"; the events recorded attempt to cover the range of the phenomenon so that resulting concepts are as full of meaning as possible.

The sample was comprised of thirty subjects. Four subjects who were contacted declined to be interviewed, leaving the sample total at 26. Although the sample was not necessarily representative of the entire population, it was anticipated to include subjects with a range of demographic characteristics and life experiences.

4.4 DATA COLLECTION TECHNIQUES

The data collection technique involved the use of semi-structured, face-to-face interviews. The semi-structured interview is designed to elicit both definitive and unexpected kinds of information from the interviewee (Polit and Hungler, 1985). The interviews were tape-recorded to provide for accurate recall of data. The interview using open-ended questions has the advantages of allowing subjects to answer in their own words and in providing the interviewer with the opportunity to clarify questions.

In factor-searching studies, this technique allows for the possibility of gathering data not pre-conceived by the investigator and also for generating richer data (Polit and Hungler, 1985). Allowing the interviewee to interpret, demonstrate, clarify, verify or confirm data is essential in

the interview process (Wilson, 1985). The disadvantages of the interview include expectations of direct help by the subject, difficulties in comparison and the time-consuming nature of both the interview and the analysis (Wilson, 1985).

The drafted interview schedule (Appendix A) was pre-tested with two individual subjects to ensure clarity of questions. Questions contained in the interview schedule were developed using the means by which Orem suggests that self-care is altered in health deviations. Because of the intimate nature of the questions, rigorous attention needed to be paid to any concerns with the schedule itself. Polit and Hungler (1985) point out that even seemingly simple and straightforward questions may be ambiguous or open to various interpretations by individuals. The researcher's ability to clarify questions at the time of the interview is one advantage of the process.

Information relating to demographic factors such as age and marital status was obtained from the subject at the beginning of the interview.

4.5 DATA ANALYSIS TECHNIQUES

The data obtained during the interviews were analyzed using a method of analysis known as content analysis. Content analysis is defined as any technique for making inferences by objectively and systematically identifying specified characteristics of communication (Berelson, 1952). This method of analysis seeks to generate patterns and compare them cumulatively with other pattern-revealing frameworks. The objective of content analysis is to discover what kinds of things an inquiry turns up, not their frequency (Carney, 1972). Content analysis always involves relating or comparing findings to some standard, norm or theory. It does this to discover latent attributes or to infer characteristics (Carney, 1972). In this study, Orem's model of self-care was the theory to which the findings were related. Specifically, her health deviation self-care requisites formed the basis for the categories employed in the content analysis. Models define what sorts of things to look for and in what sort of patterns of co-occurrences (Carney, 1972).

Content analysis makes the researcher aware of, and able to manage, an entire complex of related analytical problems. This research method provides the infrastructure without which it is not possible to evolve a research design that will enable reaching a final set of conclusions in selected cases (Carney, 1972).

Two types of content analysis are generally recognized: 1) classical content analysis and 2) theoretically-oriented content analysis. Their relative infrastructures vary in several important respects (Carney, 1972). Whereas the recording unit of classical content analysis is a single word usually counted by a computer, the recording unit of theoretically-oriented content analysis is a theme which is usually sought manually. The aims of each type differ in that classical content analysis seeks description of manifest content, while theoretically-oriented content analysis attempts to establish inferences from latent content. The criteria for classical content analysis norms are inductive and based upon external data; the criteria for theoretically-oriented norms are, of necessity, theoretical in origin. While multistage sampling is the rule in classical content analysis, sampling is generally purposive in theoretically-oriented content analysis.

Classical content analysis was used in this study to determine relative frequencies of demographic and symptom characteristics.

This study employed mainly theoretically-oriented content analysis as its method of analysis. This particular method aims at improving the infrastructure (recording units, categories or norms) of a given theory (Carney, 1972). In this case, Orem (1985) set forth six categories of health-deviation self-care requisites. Because no previous work has

examined urinary incontinence within this framework, the themes (or recording units) had to be established through detailed examination of the data.

"By a theme is meant a conceptual entity: an incident or thought process which can be seen as a coherent whole" (Carney, 1972, p. 159). Themes capture aspects of communication which cannot be dealt with by frequency counts or even contingency analysis, for example, where two or more passages contain almost identical words but mean entirely different things (Carney, 1972). This author further states that the clearest possible definition of a theme answers the statement: who does what, how, to whom and according to whom.

The unit of content that captures a theme may be a word, paragraph, sentence or incident. The analysis of content does not focus on the length of a unit.

The recorded interviews were transcribed and reviewed in detail by the researcher to identify phrases, examples and descriptions that reflected themes. Excluding the initial four demographic data questions, the questions were designed to elicit specific information about the self-care strategies employed by older women with urinary incontinence. The questions were based upon Orem's (1985) health-deviation self-care requisites.

Using Carney's (1972) definition of a theme (who does what, how, to whom and according to whom), the data were then systematically organized into themes. These themes were then compared with the six categories and grouped beneath the appropriate category.

4.6 VALIDITY AND RELIABILITY

Validity and reliability represent measurement criteria. They are the standards against which any measure is tested. Validity may be defined as the extent to which the measurement measures what it is supposed to measure (Diers, 1979). Reliability commonly refers to the extent to which repeated uses of the same measurement on the same sample will give equivalent results (Diers, 1979). Because this study described situations, and did not attempt to measure them, the usual concerns about reliability and validity do not apply in the same sense as they do to studies at more sophisticated levels of inquiry (Diers, 1979). Because the purpose of descriptive research is to generate hypotheses and not to prove them, validity and reliability in this instance are concerned more with the thoroughness and range of data collected and the credibility of the theoretical framework that arises from the data analysis process.

The criteria of reliability in a descriptive study are concerned essentially with the reliability of sources and of the recorder. Diers (1979) states that the sources of data

should represent the developing concepts and that the recorder should be able to record all of the data collected. The sources of data, older incontinent women, would appear to be able to provide the necessary data on the subject. In terms of recorder reliability, a consistent approach using a single interviewer raises the level of reliability. Information retrieval via storage of interviews on a tape was essential. In order to facilitate interpretive clarity, reflective statements were used by the interviewer.

The use of theoretically-oriented content analysis imposed limitations on reliability. Carney (1972) contends that some degree of subjectivity in content analysis is inevitable because a given document may mean entirely different things to different users. One method of increasing reliability in content analysis is the panel test, in which another researcher independently reviews and analyzes the data. Such a check was not possible within this study due to the constraint of resources.

4.7 PROTECTION OF THE RIGHTS OF SUBJECTS

The issue of subjects' rights was addressed by obtaining informed consent. Each subject was provided with a copy of the written consent (Appendix B) outlining a) the purposes of the study, b) that participation was voluntary, c) the acceptability of withdrawing from the study at any point and d) the availability of results upon conclusion of the study.

Regarding the protection of subjects' rights, the concern of risk to the interviewee arises from the intimate nature of the questions. The degree of risk as a result of participation was minimal. It is believed that the degree of risk inherent in a quality study of older incontinent women was considerably less than the value of the data obtained. Pseudonyms were used in reporting incidents and all tape-recordings were kept for future analysis by the researcher. Confidentiality was preserved.

4.8 LIMITATIONS OF THE STUDY

A recognized limitation of this study is the non-generalizability of the results obtained from this small sample to the larger population of incontinent older females. The subjects were all women who had entered the formal health care system, and thus did not reflect different strategies used by women who manage their incontinence completely independently. These limitations are acceptable in factor-searching studies because the purpose of qualitative research is to generate foundations for theory that can later be tested at higher levels of inquiry.

A further limitation of this study is the inability to control for the presence of health problems, differences in attitudes, the interpersonal environment and variations in available resources. These factors may indeed create

alterations in the self-care strategies adopted, but are useful in identifying a broader range of responses.

The use of content analysis as a method of analysis may be viewed as imposing certain limitations by its very nature. Content analysis has been criticized for its lack of scientific rigor; it is a method that does not ensure complete objectivity. It, in fact, purchases flexibility and sensitivity at the expense of rigor (Carney, 1972). A study such as this at the first level of inquiry, however, requires the very type of flexibility and sensitivity offered by content analysis in order to establish constructs related to self-care in urinary incontinence. This question has not been examined by previous research and thus demands basic information.

Theoretically-oriented content analysis is especially dependent on the model used as a framework from which to draw inferences. All models focus attention on certain aspects of a problem only by turning attention away from others (Carney, 1972).

Conceptually, Orem's self-care model has been criticized by Melnyk (1983) for placing too much emphasis on the individual, without giving due consideration to her place within social networks. It is thus recognized that conceptualizing within this framework may not have allowed for the capture of the full range of social interactions.

Yet another limitation inherent in the use of any theory is that of interpretation. If a theory (or its component parts) needs to be interpreted as to what the author meant, the theory is likely to be distorted by introducing mistaken emphases, irrelevancies and misrepresentations (Carney, 1972). Orem (1985) has delineated six health-deviation self-care requisites, but the researcher was required to further define each requisite to fit the specific problem under consideration. "A content analysis can only be as good as its categories...Categories must suit both the question and the subject matter" (Carney, 1972. p. 167). The categories must be (a) inclusive enough to hold all appropriate items, (b) cover the whole range of issues pertinent to the inquiry and (c) be such that an item can be classified under only one category. It was with the final requirement that concerns arose. Some of the themes identified may have fit equally well under several different categories. For example, the strategy dealing with urine containment may fit equally well under 1) being aware and attending to the effects and results of urinary incontinence and 2) learning to live with urinary incontinence in a lifestyle that promotes continued personal development. It was arbitrarily decided by the researcher to limit themes in the former category to those of a physical nature, while the latter would include the themes more psychosocial in nature.

Chapter V

RESULTS

5.1 INTRODUCTION

The objective of this study was to describe the manner in which older women with urinary incontinence manage their self-care. This chapter examines the data collected in 26 interviews using the self-care requisites suggested by Orem (1985) when considering individuals with health deviations. The self-care requisites were employed as organizing categories under which themes were identified. Examples from the interviews are used to illustrate salient aspects of the themes.

5.2 DEMOGRAPHIC CHARACTERISTICS

In order to provide background data about the subjects included in the sample, the following tables provide information about age, marital status, number of children and years of residency in Winnipeg. Although the sample has been arbitrarily broken down into two age groups (50 to 59 years and 60 to 75 years), it was not possible to analyze the data statistically because of the relatively small number of subjects in the younger group. Thus, the two groups cannot be compared.

TABLE 1

Frequency Distribution of Subjects by Age

Age	n	%
50-54	3	11.5
55-59	4	15.4
60-64	11	42.3
65-69	5	19.2
70-75	3	11.5

TABLE 2

Marital Status of Subjects

	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Married	4	57.1	10	52.6	14	53.8
Separated/Divorced	1	14.3	2	10.5	3	11.5
Widowed	0	0	7	26.8	7	26.9
Never Married	2	28.6	0	0	2	7.7

TABLE 3
Parity of Subjects

Number of children	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
0	3	42.9	5	26.3	8	30.8
1-4	3	42.9	11	57.9	14	53.8
4-10	1	14.2	2	10.5	3	11.5
>10	0	0	1	5.3	1	3.8

TABLE 4
Years of Residence in Winnipeg

Number of years of residence in Winnipeg	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
<5 years	2	28.6	0	0	2	7.7
5-10 years	2	28.6	5	26.3	7	26.9
>10 years	3	42.9	14	74.7	17	66.4

5.2.1 Summary

Of the 26 subjects interviewed, 19 (73.1%) fell into the 60 to 75 year old age group. The remaining subjects were between the ages of 50 and 59. Fourteen (53.8%) were married and had had 1-4 children (53.8%). 17 subjects (66.4%) had been residents of Winnipeg for more than 10 years.

The subsequent sections of this chapter will focus on the results obtained by analyzing the interviews using theoretically-oriented content analysis.

5.3 CATEGORY 1

The first category of health deviation self-care requisites is set out by Orem (1985) as:

Seeking out and securing medical assistance when there is evidence of a physiological condition known to produce human pathology.

While this study dealt specifically with the physiological condition of urinary incontinence, it was believed by the researcher to be important to assess the subjects' general state of health for two reasons. First, concurrent disease or disability may affect the woman's ability to effectively manage the self-care requisites imposed by urinary incontinence. "When integrated functioning is affected...the individual's powers of agency are seriously impaired, either permanently or temporarily" (Orem, 1985, p. 98). Secondly, the manner in which the subjects dealt with other health deviations was theorized to affect the manner in which they managed self-care of urinary incontinence.

The subsequent discussion will review data describing: frequency of chronic illnesses, use of medications,

frequency of contact with health professionals, utilization of therapies and frequency of hospital admissions. The data were obtained through detailed analysis of the responses to question five (See Appendix A). Table 5 lists the chronic illnesses most prevalent in this particular sample.

TABLE 5
Frequency of Common Chronic Illnesses

Chronic Illness	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
None	4	57.1	3	15.8	7	26.9
Arthritis	2	28.6	9	47.4	11	42.3
Cancer	0	0	5	26.3	5	19.2
Cataracts	0	0	3	15.8	3	11.5
CHF	0	0	4	21.2	4	15.4
Depression	0	0	2	10.5	2	7.7
Diabetes	0	0	2	10.5	2	7.7
Osteoporosis	0	0	4	21.2	4	15.4
Hypertension	1	14.3	7	36.8	8	30.8

It should be noted that in the 60 to 75 year old age group, five subjects (19.2%) had multiple chronic illnesses, thus making the sums of the distributions of both the 60 to 75 year old group and the total greater than 100%. Most typically the multiple

hypertension and remote cancer. None of the 50 to 59 year olds suffered from multiple illnesses. The groups appeared different in terms of chronic illness, although it is impossible to verify this statistically. Unfortunately, the statistic chi square could not be applied because of the cell size in the younger group being less than 4.

Of all subjects, 11 (42.3%) reported the presence of arthritis, severe enough in several cases to restrict mobility and in one instance, to confine the individual to a wheelchair. Osteoporosis was reported by four subjects (15.4%). Mobility was somewhat hampered in each of these cases because of the extreme fragility of the bones. When mobility is impaired, the woman may not be successful in maintaining continence when urinary problems take the form of urgency incontinence. Vetter et al. (1981) established that, as mobility decreases, urinary incontinence increases.

Hypertension was reported by eight subjects (30.0%). The main significance of this health deviation is its common treatment with the use of diuretics. As indicated in Table 6, six subjects (23.1%) used diuretics, agents which caused increased urine flow and may further exacerbate the frequency of toileting required or episodes of incontinence experienced.

TABLE 6
Use of Medications

Medication	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Anti-inflammatory	2	28.6	9	47.4	11	42.3
Antibiotics	3	42.9	5	26.3	8	30.8
Anti-depressants	2	28.6	2	10.5	4	15.4
Anti-spasmodics	0	0	3	15.8	3	11.5
Diuretics	1	14.3	5	26.3	6	23.1
Insulin	0	0	1	5.3	1	3.8
Unable to specify	0	0	2	10.5	2	7.7
None	2	28.6	2	10.5	4	15.4

Table 6 indicates that 11 subjects (42.3%) took anti-inflammatory agents (primarily salicylates) to combat the effects of arthritis. This class of drugs does not normally alter urinary function (Rodman and Smith, 1979), although they do have the potential to mask the pyrexia induced by a urinary tract infection.

Various types of antibiotics were prescribed to the subjects. Eight subjects (30.8%) took these medications as a result of recurrent urinary tract infections. Although many types of antibiotics are available, they are not usually associated with adverse effects upon the urinary system (Rodman et al., 1979).

TABLE 7

Frequency of Contact with Health Professionals

Frequency of Contact	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
> twice weekly	0	0	2	10.5	2	7.7
1-2x/week	1	14.3	7	36.8	8	30.8
Once in 2 weeks	0	0	5	26.3	5	19.2
Once in 3-4 weeks	2	28.6	4	21.1	6	28.1
Once in 5-8 weeks	0	0	1	5.3	1	7.8
< once in 2 months	4	57.1	0	0	4	15.4

Table 7 provides data on the frequency of contact with health professionals.

The younger age group in the sample had generally less frequent contact with physicians and nurses than did the older age group. The 50 to 59 year olds generally sought medical attention only when health problems were evident or as they had been previously directed. Only one individual in this group received home nursing service.

The 60 to 75 year olds showed a somewhat different pattern of health professional usage: their frequency of contact with both physicians and nurses was generally higher, perhaps reflecting a higher incidence of health problems in this group. Of this older group, nine women

(47.4%) received ongoing care from a community nursing agency. In several of these cases, the subjects also received urine containment devices from the community agencies. Because contact occurred for a variety of reasons, one cannot risk any assumptions from this data regarding the impact of health professional contact upon the management of incontinence.

TABLE 8
Utilization of Therapies

Type of Therapy	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Current physiotherapy	1	14.3	6	31.6	7	21.9
Current occupational therapy	1	14.3	3	15.8	4	15.4
Current day hospital	0	0.0	2	10.5	2	7.7

Subjects' utilization of therapies is described in Table 8. It was assumed that participation in physiotherapy or occupational therapy may have provided an indication of the severity of physical handicaps present. Four subjects (15.0%) received both physiotherapy and occupational therapy

designed to promote both mobility and independent self-care. All subjects receiving occupational therapy were concurrently involved in a program of physiotherapy. This may indicate more serious mobility deficits.

TABLE 9
Frequency of Hospital Admissions

Frequency of hospital admissions	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
None in the last 2 years	4	57.1	11	57.9	15	57.7
Once in the last 2 years	4	28.6	4	21.1	6	23.1
Twice in the last 2 years	0	0	3	15.8	3	11.5
Three times in the last 2 years	1	14.3	0	0	1	3.8
> three times in the last 2 years	0	0	1	5.3	1	3.8

The number of hospital admissions may provide a rough indication of the severity of illness or the inability to effectively conduct overall self-care at home. As Table 9 shows, 15 subjects (57.7%) had no hospital admissions over the preceding two years, indicating their health was probably at least fair in quality.

5.3.1 Summary

Within this sample, 11 subjects (42.3%) were afflicted with arthritis. This is a much higher incidence than the 3% found in the general population (Anderson, 1980). Hypertension affected eight (30.8%) of the women. The most commonly prescribed drugs were anti-inflammatory agents, taken by 11 subjects (42.3%) and antibiotics, taken by eight women (30.8%).

The data indicate that 21 subjects (80.8%) had contact with health professionals more frequently than once in three to four weeks. Seven subjects (21.9%) were involved in a physiotherapy program. Four of the same women (15.4%) also attended occupational therapy sessions. Two subjects (7.7%) attended a day hospital program. The majority of subjects (57.7%) had had no hospital admissions in the preceding two years.

5.4 CATEGORY 2

The second health deviation self-care requisite promulgated by Orem (1985) is that of:

Being aware of and attending to the effects and results of the pathology.

The effects and results of urinary incontinence were well-known to each of the subjects interviewed. This category will focus on a description of the symptoms, the

physical effects of urinary incontinence and the self-care strategies employed by subjects to manage the symptoms. While it is recognized that incontinence has effects and results in the emotional and psychosocial spheres, as well as in the physical, the present category will be limited to the latter. Subsequent categories will feature discussions of the emotional and psychosocial sequelae of urinary incontinence. Data discussed in this category were obtained through an examination of the responses to questions five, six and seven (Appendix A).

TABLE 10
Attribution of Etiology of Urinary Incontinence

Attribution of Etiology	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Aging	0	0	11	57.9	11	42.3
Pregnancy	3	42.9	5	26.3	8	30.8
Medications	1	14.2	5	26.3	6	23.1
Previous surgery	0	0	2	10.5	2	7.7
Weight	1	14.2	1	5.3	2	7.7
Illness	0	0	2	10.5	2	7.7
Other	0	0	2	10.5	2	7.7
Don't know	2	28.6	3	15.8	5	19.2

Table 10 provides data on the subjects' perceptions of the etiology of their urinary incontinence. It is of interest

that while none of the 50 to 59 year olds attributed the presence of urinary incontinence to aging, almost one half (47.3%) of the older women did. Those subjects with a remote onset of urinary incontinence appeared least likely to attribute the etiology to aging. Pregnancy was also frequently mentioned as a probable cause of urinary incontinence, while medications were often blamed as the etiology of incontinence by those women taking diuretics.

TABLE 11
Onset of Urinary Incontinence

Time of Onset	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Within last year	0	0	1	5.3	1	3.8
Within last 5 years	1	14.2	1	5.3	2	7.7
Within last 10 years	3	42.9	5	26.3	8	30.8
>10 years ago	3	42.9	12	63.2	15	57.7

Table 11 establishes that 15 subjects (57.7%) had suffered with the symptoms of urinary incontinence for more than ten years. Because the sample is not representative, one cannot conclude that this health deviation is not being

effectively treated. The reader must, however, bear in mind the long-standing nature of urinary incontinence within this particular sample of women in mind when examining their responses and reported self-care strategies.

TABLE 12
Nature of Symptoms

Nature of incontinence	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Intermittent since onset	7	100	17	89.5	24	92.3
Persistent since onset	0	0	2	10.5	2	7.7

Table 12 provides data on the nature of symptoms experienced by subjects. The intermittent nature of urinary incontinence may help to account for the long-standing nature of the problem. In the words of one respondent,

I knew I had this problem with my water, but it was easy to just ignore it or pretend it was just an infection and would go away. It would come and go over the past 15 years and I guess I just never wanted to admit that I needed to do something about it.

TABLE 13
Frequency of Incontinent Episodes

Frequency of incontinent episodes	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Once/week	0	0	0	0	0	
2-5x/week	5	71.4	1	5.3	6	23.1
Once/day	2	28.6	7	36.8	9	34.6
2-5x/day	0	0	10	52.6	10	38.5
>5x/day	0	0	1	5.3	1	3.8

Each of the subjects in the sample experienced urinary incontinence at least two to five times per week, as indicated in Table 13. Yarnell et al. (1981), in a study of women 18 years and older, established that most women report episodes of urinary incontinence that are infrequent in character and small in amount.

Table 14 establishes that 14 subjects (53.8%) reported average urine losses of half a cup. Difficulties with accurate quantification are reported in the literature by Robb (1985), but each of these women felt that the amount of loss necessitated either a change of containment garment or a change of clothing. Even women reporting a small amount of loss were compelled to change their garments following an

TABLE 14
Amount of Urine Lost per Episode

Amount of urine lost in a single episode	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
	One tablespoon	0	0	0	0	0
Few tablespoons	6	85.7	2	10.5	8	20.8
Half a cup	1	14.2	13	68.4	14	53.8
One cup	0	0	4	21.1	4	15.4

episode of urine loss. Those who perceived average loss as a cup report more dramatic problems. One respondent stated:

Sometimes I have trouble telling how much urine I'm going to pass. It may just sneak up on me and I'll stand up and suddenly I'm standing in a puddle with wet shoes and stockings and everything I'm wearing is soaked.

The overwhelming majority of subjects felt that they had fewer incontinent episodes when they knew exactly where the bathroom was located and when they knew it was easily accessible (see Table 15). In the words of one woman:

I can tell you where every washroom in this city is. If i don't know where it is a store, I don't go there to shop because its just too easy to have an accident when you're desperate. Some of the stores don't like you to use their facilities. I don't shop at those places either.

TABLE 15
Alleviating Factors

Alleviating Factors	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Fluid restrictions	2	28.6	12	63.2	14	53.8
Knowing location of bathroom	7	100.0	17	39.5	24	92.3
Other	1	14.2	0	0	1	3.8
None	0	0	2	10.5	2	7.7

Another reported:

I check out the bathroom wherever I go. I think I've developed quite the art of casually casing a place so I don't get nervous when I need to go NOW...Knowing where the bathroom is gives me peace of mind and I think that in itself prevents accidents.

Another important factor in alleviating episodes of incontinence, as reported by 14 subjects (53.8%), was the restriction of fluid intake. A typical response is the following:

I know it's no cure...Not drinking is just a way of trying to make the problem a little easier to deal with. It helps make the uncertainty a little less uncertain.

TABLE 16
Exacerbating Factors

Exacerbating Factors	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Cold temperatures	7	100.0	17	89.5	24	92.3
Urinary tract infection	6	85.7	12	63.2	18	69.2
Psychological stress	6	85.7	18	94.7	24	92.3
Increased intra-abdominal pressure	5	71.4	13	68.4	18	69.2

As can be seen in Table 16, three factors were repeatedly listed as exacerbating episodes of urinary incontinence by almost all subjects: cold ambient temperature, psychological stress and increased intra-abdominal pressure. Also mentioned by several women as exacerbating factors were the coughing associated with smoking and the diuretic effects of

TABLE 17

Conditions under which Urinary Incontinence Occurs

Conditions under which incontinence occurs	50-59 years (n=7)		60-75 years (n=19)		Total (N=26)	
	n	%	n	%	n	%
Daytime only	7	100.0	16	84.2	23	88
Night-time only	0	0	0	0	0	0
Anytime	0	0	3	15.8	3	1

coffee and alcohol.

Table 17 indicates that most subjects reported difficulty with urinary incontinence mainly during the daytime. Many had a set toileting schedule they had themselves established, waking up as frequently as once an hour throughout the night. This problem is illustrated in the following account:

It's a lot harder at night...easier to wet the bed which is a lot more trouble to fix than it is to change your panties. I don't think I've gotten more than 3 hours of solid sleep in the past twenty years because of this.

5.4.1 Strategies to Deal with Urine Containment

All women interviewed disclosed the daily use of some type of urine containment device. These devices fell basically into three categories: a) sanitary napkins, b) diapers and c) special garments. Responses to question nine provided the themes in this case.

Sanitary napkins were used by 16 subjects (61.5%) as their primary strategy to contain urine. Depending on the frequency and severity of urine loss, regular "maxi-pads" were employed by most women during the day. Three women (11.5%) in this group switched to maternity pads at night to provide greater absorbency in case of an incontinent episode.

Sanitary pads appeared to be an acceptable means of containing urine. The subjects, after all, had used these products during menses in their reproductive years and generally seemed to feel their continued use to manage incontinence involved less psychological stigma than utilizing diapers. In short, for some subjects, the continued use of feminine hygiene products may have been a means of mitigating the undesirable implications of urinary incontinence. Two subjects described their feelings about the use of diapers in the following manner:

I know I should be using diapers because pads just don't do the trick anymore, but I can't bring myself to go down to the store and buy them. I keep hoping this problem will disappear one day, and if I start buying diapers, it may mean that I'll suffer with this forever.

There's just a mental block against switching to diapers. Diapers are for babies or old people who are too senile to go to the bathroom.

Diapers were used exclusively by four women (15.4%) in the sample. Six women (23.1%) used a combination of sanitary napkins (usually during the day) and diapers (usually at night). The diapers were generally cloth, sewn by the subjects themselves, although one subject in this group found bath towels to work well for her. Only two of the ten (20%) subjects using diapers bought commercial adult diapers. In the words of one subject:

When I buy flannel for diapers, no one knows what I'm buying it for...maybe I'm making diapers for my grandchildren."

Another said:

I just can't stomach the thought of going to a store and standing in line with these adult diapers in my hand. I might as well rent a billboard telling the world my problem.

It appears that the stigma of purchasing diapers may account for some part of the relatively low usage of commercial products in this group. Two alternate reasons for dissatisfaction with the commercial products, cost and noise, were also stated in the following manner:

Oh, I tried the adult Pampers and they worked beautifully, but do you know how much they cost? I could easily spend my whole pension on them. I said to myself, I have better things to spend my money on than fancy diapers. Cloth ones were good enough for my kids and they'll be good enough for me.

The diapers you buy make so much noise...it sounds like you're wearing plastic pants. I won't use them just because of that.

Special garments were used by only four (15.4%) of the subjects. One woman used plastic pants over her cloth diapers. The other three subjects made use of underwear specially designed for those with urinary incontinence. These garments generally had a mesh and plastic pocket in which a pad could be inserted. Concerns were again raised about the exorbitant cost of these garments, but the users seemed on the whole satisfied with the comfort and reassurance the device provided. One subject revealed:

It does cost an arm and a leg, but sometimes you have to pay the price to avoid embarrassment. Besides, these special panties will last forever if you take care of them.

A number of subjects elaborated on the importance of suitable clothing in the presence of urinary incontinence. They felt the proper choice of clothing was critical in social situations, as the following three separate incidents indicate:

I think everything I own now is dark - either black or brown or blue. I found that it's less noticeable when you've had an accident than if you're wearing light colors.

I'm just lucky baggy clothes are in style. I've worn them anyways for a long time now because I'm very self-conscious about the bulkiness of the diapers showing through the clothes.

When I buy clothes, I do two things - I make sure it's washable and I buy two of exactly the same thing. No matter where I go, I carry the exact twin of whatever I'm wearing. That way I can change if I get wet and no one will know the difference. I've done this for years and I really don't think anyone caught on.

5.4.2 Strategies to Deal with Personal Hygiene

Personal hygiene proved to be a major issue for all of the subjects. These women uniformly expressed a fear of the odor associated with urinary incontinence and generally were concerned that the presence of such an odor would reveal to others their problem. The following descriptions are typical:

My mother was in a nursing home for years and those people always stank. When I first got this problem with my water, I was determined no one would ever be able to smell me.

Odor is one thing I'm really paranoid about. It's also the one thing people won't tell you about to your face. So I've developed this obsessive kind of schedule for washing so that I don't have to worry all the time about smelling.

I'd say the fear of smelling is probably my biggest worry. They say when you get older your sense of smell isn't so good so that's another reason I worry...because maybe I won't be able to tell myself when I smell.

All subjects promoted personal hygiene with a regimen of perineal cleansing after each incontinent episode. Regular bar soap and water were the most commonly used cleaning agent. One woman regularly used vaginal douches, but the rest of subjects did not employ this method of hygiene. A few subjects, especially those suffering from irritated perineal skin, used alternative cleansing methods. Excerpts from four interviews illustrate the concern with washing:

My skin gets so raw sometimes. I need to make sure it's cleaned real good. I noticed when I was in the hospital that they used this special yellow stuff [Savlon], so I went and bought some for myself. I carry with me in a little spray bottle all the time now so that if I'm not at home when I have an accident, I can still wash myself.

For cleaning, I always used a perfumed soap like Estee Lauder. That way I can be sure to get clean and fresh.

I want to keep as clean as possible so I always use a soap like Phisoderm which kills bugs.

I always make sure I have some Handi-wipes, you know, those little disposable cloths they use for babies. That way I know I can keep myself clean.

Two subjects (7.7%) had developed highly ritualized washing protocols, involving two to five tub baths or showers each day, depending on the number of incontinent episodes. Twenty subjects (76.9%) bathed daily. Four subjects (15.4%) were physically unable to bath

independently and so bathed twice per week when Home Care assistance was available.

Deodorant products were used by five (19.2%) subjects. Four of these individuals employed "feminine sprays", while one subject developed a rather unique means of employing liquid underarm deodorant.

I've started to use roll-on deodorant on the insides of my legs to smell fresher. I usually put it on at least twice a day. I just feel that it's extra protection.

Two subjects (7.7%) identified that adequate fluid intake was important in controlling odor. As one of them expressed it,

If you don't drink enough, the urine gets very strong-smelling. I always try to drink at least eight glasses of water a day to keep the smell down.

Chlorophyll tablets, an oral odor antagonist, were used on a daily basis by one woman. According to the package, chlorophyll "neutralized the odor associated with fecal and urinary incontinence."

Another aspect of personal hygiene identified by subjects was the importance of clean clothing. Eleven women (42.3%) felt they spent significantly more time doing laundry than they had before urinary incontinence was a problem. This seemed especially apparent in the four subjects who used cloth diapers exclusively.

Laundering diapers was a source of potential embarrassment for those with shared laundry facilities. One woman reported:

I make sure I wash my diapers at night when there's no nosy neighbors around to wander over and check out what kinds of clothes I'm washing. I would be mortified if anyone saw me washing diapers. You can be sure that if my next door neighbor saw me, the whole block would know about my problem by morning.

5.4.3 Strategies to deal with Urinary Tract Infections

Recurrent urinary tract infections (UTI) were stated to be a significant problem for ten subjects (38.5%). Most felt, correctly, that moist conditions created in the perineal area by incontinence caused an overgrowth of bacteria or fungi. The UTIs caused a number of discomforting symptoms: pruritis, skin irritation and increased odor. One subject had even experienced a bout of pyelonephritis related to recurrent UTIs. She said:

I'm really worried that I'll end up on one of those kidney machines. The doctors told me I have to be real careful that I don't get any more infections. I'm sure that if I got rid of this problem [urinary incontinence], I'd be okay. I never got infections before.

The strategies most often cited by subjects to deal with UTIs were: contacting their physician, using skin barrier creams and dessicating powders such as cornstarch and increasing fluid intake.

The doctor doesn't have to tell me anymore. I know when I have an infection in my urine that I need to drink and drink till I'm sick of drinking. That

and Septra are the only things that help to get rid of the bugs.

5.4.4 Strategies to Deal with Skin Problems

All subjects stated that they had experienced at least one episode of perineal irritation related to urinary incontinence. 12 subjects (46.2%) felt that skin problems were a major concern. Each of these women emphasized the importance of keeping urine off the perineal skin when it was irritated. This was achieved by frequent changes of urine containment garments and clothing. One subject mentioned that she felt the drying effects of a cool blow dryer on the the perineal area to be soothing.

The pruritis and skin irritation associated with urinary incontinence required particular self-care strategies to deal with them, as indicated in the following report:

When I get an infection, my skin gets scalded...just like a bad burn and then if I lose any urine, it's just excruciatingly painful. It just incapacitated me sometimes and I have to lay down and expose the skin to air.

The most common strategies involved the use of skin barrier creams (eg. Zincofax) and desiccating powders (eg. cornstarch, baby powder).

5.4.5 Strategies to Reduce the Frequency or Severity of Incontinent Episodes

While most subjects felt that there was little they were able to really accomplish in this area, several identified strategies they found helpful. The strategy of reducing liquid intake is illustrated in the following case:

If I know I have to go out, I make sure I don't have anything to drink from the time I get up in the morning. I get so thirsty, but I'd rather be thirsty than wet in public.

Another strategy was re-scheduling medications, especially diuretics, which subjects like the one below felt worsened their symptoms of incontinence.

I know I'm supposed to take my water pill in the morning, but then I pee too much during the day, I always take it at night.

5.4.6 Summary

Category 2 dealt with the awareness and attention of subjects to the effects of urinary incontinence. 11 subjects (42.3%) attributed their incontinence to aging. This concurs with Simons' (1985) finding that older women often believe urinary incontinence is an inevitable consequence of the aging process. Other common perceptions of attribution were pregnancy, by eight subjects (30.8%) and medications, by six subjects (23.1%).

Of subjects in this sample, 15 (57.7%) had been incontinent for more than 10 years. Only two (7.7%) had had

persistent problems since its onset; most (92.3%) had had intermittent, but increasingly severe difficulties. The frequency of incontinence in this group generally ranged between two to five times per week to two to five times per day (96.2%). Over half of all subjects (53.8%) stated that they lost approximately half a cup of urine during any single incontinent episode.

The overwhelming majority of subjects (92.3%) felt that the single most important alleviating factor was knowledge about the location of the washroom. This may be speculated to reduce anxiety. It is also an important factor to consider when orientating older persons to the layout of hospital wards.

Subjects generally agreed that cold temperatures (92.3%), psychological stress (92.3%), urinary tract infections (69.2%) and increased intra-abdominal pressure (69.2%) were factors which made the symptoms of urinary incontinence worse.

All subjects in this sample used some type of urine containment device. These were: sanitary napkins (61.5%), diapers (23.1%) and special garments (15.4%). Personal hygiene was identified as a major concern for all subjects. Urinary tract infections were a significant problem for ten women (38.5%). All of the subjects had experienced perineal irritation related to urinary incontinence; 12 subjects

(46.2%) identified skin problems as a concern. The majority of subjects felt there was little they could do themselves to decrease the frequency or severity of incontinent episodes.

5.5 CATEGORY 3

The third health deviation self-care requisite identified by Orem (1985) is:

Effectively carrying out medically prescribed diagnostic, therapeutic and rehabilitative measures directed at the pathology or to compensate for disabilities.

The recording units for this category were established by reviewing the responses to Questions 8 and 9.

All of the subjects interviewed had undergone urodynamics testing, a medically prescribed, invasive diagnostic modality designed to assess the various pressures and capacities of the urinary system. Urodynamics testing provides the following information:

1. uroflowmetry (measures flow rate of urine expelled from the bladder and gives volume, peak flow rate, mean flow rate and total voiding time)
2. cystometry (measures pressure-volume relationships in the bladder)
3. rectal pressures (monitors intrabdominal pressures during cystometrics)

4. electromyography (records anal and urethral sphincter activity)
5. static urethral pressures (McGinnis, 1986)

While three subjects (11.5%) reported mild pain during the procedure, most felt that this diagnostic measure did not induce discomfort. It is difficult to assess what "effectively carrying out" means in this context as the patient is a relatively passive participant in the urodynamics process. Basically all the subject had to do was show up for her urodynamics appointment.

A similar situation exists when one considers the cystoscopy as a diagnostic measure. A cystoscopy is an internal examination of the bladder using a lighted instrument. Two subjects (7.7%) had undergone cystoscopy in the preceding two years, both requiring brief admission to hospital for the procedure. These two women stated they had been compliant with the medically prescribed directives both during and following their procedures.

Reparative surgery (Marshall-Marchetti procedure) had been suggested to four subjects by their physicians as a means of curing their incontinence. Two subjects refused this option, citing the experience of friends who had had complications as a result of the surgery. One woman was seriously considering the surgery, while the remaining subject was felt to be too high risk to withstand an anesthetic.

Orem (1985) differentiates between therapeutic and rehabilitative measures. She maintains that therapeutic measures 1) support life processes, 2) maintain human structure and functioning within a normal range, 3) support development in accord with human potential, 4) prevent injury and pathology, 5) contribute to the regulation or control of the effects of injury and pathology, 6) contribute to the cure or regulation of pathological processes and 7) promote general well-being. Rehabilitation, Orem (1985) believes, focuses on the developmental self-care requisites associated with conditions resulting from pathology, medical diagnostic or treatment procedures or the results of inadequate nursing or dependent care. Developmental self-care requisites are either specialized expressions of universal self-care requisites that have been particulatized for a developmental process or they are new requisites derived from a condition or associated with an event. Such broad definitions create problems in practically differentiating therapeutic and rehabilitation measures.

A number of medically prescribed therapeutic measures designed to regulate or control incontinence were identified by subjects.

Two subjects (7.7%) were currently taking the medication oxybutynin (Ditropan), while four others (15.5%) had previously been prescribed this drug. Ditropan is a smooth

muscle relaxant that acts primarily as an antispasmodic but also has anti-cholinergic properties, i.e. it inhibits bladder contractions by depressing the contractile impulses of the bladder wall (Julian, 1985). This agent also has a local anesthetic effect that aids in the treatment of bladder instability accompanied by frequency or urgency incontinence; it is generally given in 5 mg. doses 2-3 times per day (Julian, 1985).

Propantheline (Pro-Banthine) was prescribed for one patient. Propantheline is an anticholinergic which increases bladder capacity and decreases vesical contractility (Julian, 1985).

All subjects currently taking medications to control the symptoms of incontinence reported meticulous adherence to the prescribed drug regimen. These women appeared motivated to comply with physicians' medication orders to reduce their symptoms. In the words of one:

Oh, I never miss a dose. If this is really supposed to help, I'll do whatever it takes...I made a check-off sheet for I make sure I don't miss any.

Eight subjects (30.8%) were currently taking a variety of antibiotics for acute or chronic UTIs. Two women (7.7%) were receiving a prolonged course of antibiotics on a daily basis for low-dose prophylaxis against organisms causing chronic infections.

Pelvic floor (Kegel) exercises were suggested to seven (26.9%) of the subjects by their physicians. These exercises are designed to progressively increase the demands made on the pelvic floor and perineal muscles to improve their strength and their ability to hold a full contraction for longer periods (Milliard, 1986). From the subjects' description of the instruction they received in the performance of these exercises, it would seem that most were poorly informed about both the technique and the underlying rationale, as indicated in the following report:

He [the physican] told me I should read this pamphlet and do the exercises. He never explained how they were supposed to help. I tried them for a few days, but they weren't helping so I stopped.

Montgomery (1986) states that muscular function improves more slowly in older women. They need to be told at the outset that they may require these exercises twice a day for six months in order to perceive any improvement.

Of the seven women to whom these exercises were suggested, only one actually performed them for longer than one month. She reported it made no improvement in her symptoms.

One woman reported that her urologist had placed her on an intermittent catheterization program in order to maintain her bladder volume at a low level and thus alleviate overflow incontinence. She kept records of the time and volume catheterized and felt she was managing this regime without difficulty.

5.5.1 Summary

In examining the requisite of carrying out medically prescribed diagnostic, therapeutic and rehabilitation measures, it was necessary to identify what these measures consisted of in this group. They were found to consist of: urodynamics testing and cystoscopy (diagnostic measures), medications (therapeutic measure) and Kegel exercises (therapeutic measure).

Subjects felt they had effectively carried out the diagnostic and therapeutic measures, but demonstrated low compliance in carrying out the rehabilitation measure. This was apparently the result of lack of knowledge about the implementation of Kegel exercises and their expected outcome. Improved patient education in this area appears to be indicated.

5.6 CATEGORY 4

This health deviation self-care requisite involves:

Being aware of and attending to or regulating the discomforting or deleterious effects of medical measures prescribed by the physician.

The recording units for this category were established by reviewing the responses to questions eight and nine.

As reported previously, only one subject reported short-lived mild discomfort with urodynamics testing. No

deleterious effects were identified by subjects following cystoscopy.

Of the three subjects (11.5%) receiving anti-spasmodic/anti-cholinergic medications, none had experience or were able to describe the potential adverse effects of these drugs. Propantheline is often poorly tolerated by patients; it may cause dry mouth, blurred vision and urinary retention (Julian, 1985). Oxybutynin is generally tolerated better but may cause decreased visual accommodation and dry mouth (Julian, 1985).

No side-effects were reported by women who were currently taking antibiotics. They were unable to describe the potential side-effects of these medications.

While pelvic floor exercises are not known to create deleterious effects (Montgomery, 1986), subjects advised to perform these exercises demonstrated low compliance, possibly due to lack of perceptible improvement. Two subjects commented that it was physically difficult to perform the exercises and further that it was difficult to remember to do them at all.

5.6.1 Summary

There were essentially no deleterious effects resulting from the diagnostic, therapeutic or rehabilitation measures previously discussed. Subjects did not, however, appear to

possess knowledge regarding the potential adverse effects of their medications. This is an area in which nursing needs to assume a supportive-educative role (Orem, 1983) when dealing with incontinent individuals.

5.7 CATEGORY 5

In this category were reviewed data related to the following health deviation self-care requisite (Orem, 1985):

Modifying the self-concept in accepting oneself as being in a particular state of health and in need of specific forms of health care.

This category was assessed by examining the responses to questions to questions eight through 14 (see Appendix A).

The preceding review of the literature has discussed in detail the potential psychological effects of urinary incontinence. While it cannot be assumed that urinary incontinence was responsible for the complete depth or extent of the negative self-perceptions expressed by subjects, the following data were specifically related to the presence of urinary incontinence by subjects. The themes identified within this category include shame and embarrassment, loss of control, frustration and anger and acceptance. Information management strategies will also be discussed.

5.7.1 Shame and Embarrassment

All subjects interviewed expressed feelings of shame and embarrassment about being incontinent of urine. The deep-rooted conviction that urinary incontinence is an "unclean" state was apparent in these two responses:

When I think back over all the things that I've lived through, I really believe that incontinence has been one of the most difficult things to deal with. You can't imagine what it's like for a grown woman to be in a situation where she has to think about wearing diapers, just like she did when she was a baby.

I'm so paranoid that people will find out about my problem...I'd be so embarrassed that I could never speak to them again. It's just such a dirty thing.

The above examples of the common feelings of shame and embarrassment appear to lend credence to the contention that urinary incontinence is perceived as a stigmatizing characteristic, an attribute discreditable to one's personal identity (Goffman, 1963). Because urinary incontinence has this stigma, the information management strategies employed by these individuals were important.

5.7.2 Loss of Control

Closely intertwined with shame and embarrassment, and perhaps even the precursor of these feelings, is the sense of loss of control. One subject poignantly stated her case in this way:

It [incontinence] has always controlled my life. You can't even visit your neighbor because you're scared you'll wet yourself and look like a fool...People think you're really weird when you can't wait to go to the toilet. They make you feel like a little kid they have to talk down to or maybe someone who's senile.

5.7.3 Frustration and Anger

Feelings of frustration were voiced by eight (30.8%) subjects. The frustration revolved mainly around the lack of curative measures to eradicate or alleviate urinary incontinence. The following is an example of such feelings of helplessness:

I try to do my best to do everything the doctor tells me to do, but nothing is helping. They says there's an answer to everything, but not in my case. They can send men to the moon, but they can't come up with a cure for people like me.

Two women appeared to direct their anger and frustration inwardly.

Sometimes I get so mad at myself that I could scream. I feel like I'm letting this cripple me...I look at other people who have bad diseases like cancer and I tell myself I'm really not that bad off. But, when something bad happens to you, you still feel rotten.

I keep thinking I must have done something wrong to deserve this punishment...It's just not fair.

This rage may eventually lead to symptoms of depression.

5.7.4 Acceptance

Only one subject approached Orem's (1985) ideal of accepting oneself as being in a particular state of health and being in need of specific forms of health care.

I think of incontinence as a social problem more than anything. It's nuisance value is incredible and it does make it hard to do things everyone else just takes for granted...I think I'm a realistic person, though, and I've accepted this as something I'll probably always have.

5.7.5 Information Management Strategies

The presence of urinary incontinence was a problem subjects discussed with few, if any other people. Ten subjects (38.5%) had discussed it with their physicians only; even some spouses were not privy to this carefully-guarded information.

I'm surprised I've managed to keep it a secret for so long, but I really don't think my husband knows. He'd just be disgusted with me anyways.

Eight (30.8%) subjects had discussed the presence of urinary incontinence with their physicians, nurses or husbands. The effects perceived by two of them are quite dissimilar:

My husband knew about the problems with my waterworks when he married me. I don't think it bothers him.

I wish I'd never told my husband. He makes fun of me when we fight... he says I'm not normal because of the incontinence and that I don't try hard enough. He thinks I'm just looking for attention.

Five (19.2%) women had shared their difficulty with physicians/nurses, husbands, siblings and/or children. As one reports:

My sister has been the person who's helped me the most. She really understands what a problem it can be and she's always finding me things to read about it.

Only three (11.5%) of the 26 women had ever discussed urinary incontinence with friends or acquaintances. It is of note that they were in the group of subjects with the longest history of this problem. Most subjects were very concerned about what others would think if they discovered the presence of this health deviation. One subject, who said she frequently discussed urinary incontinence with her friends, displayed a unique information management strategy in dealing with this potentially stigmatizing attribute:

I talk to lots of people about incontinence, but I say it's my mother-in-law's problem. After the kinds of reactions I've seen from people, I don't think I'd dare tell them it's actually my problem...They're usually sympathetic, but say things like "That's what happens when you get old" or "I hope that never happens to me".

This subject, then, never revealed her own problem with urinary incontinence and she cannot really be considered to have told her friends.

5.7.6 Summary

Category 5 examined subjects' modifications in self-concept in accepting themselves as incontinent. The most commonly expressed feelings of women in this study were: a sense of loss of control, frustration and anger and shame and embarrassment. These findings support those of Yu (1987), who reported that, at least half of the time, many individuals with urinary incontinence feel helpless, angry, outcast and ashamed. This study, however, did not purport to undertake a complete investigation of the psychological responses to incontinence and certainly cannot provide the detailed and specific information found in Yu (1987). There is a definite need, however, for further study of the emotional sequelae of urinary incontinence and for controlled studies investigating the efficacy of interventions designed to improve the self-concept of this group.

5.8 CATEGORY 6

Orem's (1985) final category of self-care requisites in health deviation is:

Learning to live with the effects of the pathology and the effects of medical care in a lifestyle that promotes continued personal growth.

These themes were identified by examination of the responses to questions eight to fourteen (see Appendix A).

While urinary incontinence appears to create real difficulties in the maintenance of a positive self-concept, the majority of subjects had made strides towards learning to live with the effects of incontinence. This section will identify the strategies subjects utilized in their daily lives to manage the symptoms of incontinence.

5.8.1 Strategies Designed to Alter Lifestyle

While 13 of the subjects (50.0%) attached no importance to the relationship between lifestyle and urinary incontinence, others expressed a strong need to make positive changes in their habits which they hoped would improve their symptoms.

Three subjects (11.5%) identified that coughing associated with smoking led to frequent incontinent episodes. Two subjects (7.7%) have quit smoking entirely, while the other "is trying to keep smoking to a minimum".

Consumption of alcohol was pointed out as an exacerbating factor by two subjects (7.7%). Both stated that they no longer consumed alcohol in any form. Coffee was identified as a culprit by five women (19.2%). Four of these no longer drank coffee. The other was careful to limit coffee to times when she would be staying at home. In her words,

It seems like you always need to pee more when you drink alcohol or coffee. I guess the other thing is that your muscles relax and it's easier to have

an accident. I've stopped drinking alcohol altogether now, even wine.

Self-medication with a variety of vitamins and health foods was felt by three subjects (11.5%) to potentially alleviate urinary incontinence. One woman was quite adamant that the addition of cod liver oil, lecithin, bean curd and high doses of Vitamin C was helpful. In addition, another woman identified oil of cloves as helpful. The efficacy of these measures is not documented.

5.8.2 The Role of Significant Others in Self-Care

The general consensus of subjects was that their self-care was at least adequate and they did not need family member or significant other involvement in incontinence management. One subject's husband facilitated her self-care by washing the laundry. The sister of another subject was instrumental in locating skin care products to reduce perineal discomfort. The other 24 subjects (92.3%) denied any involvement by others in their daily self-care. They were quite proud of their continued independence. Those using commercial diapers, however, generally found the cost exorbitant and felt that some government-funded subsidy of this expense would be helpful.

5.8.3 Strategies to Facilitate Social Interaction

Difficulties in participating fully in social and sporting events were identified as a major concern by most subjects (73.1%). These difficulties may be speculated to be mainly the fear of public embarrassment. Additionally, the lack of accessible washroom facilities may have proven a hindrance. As one subject reported:

I don't like to go too far from home. I'd rather have company than go out...It would be very embarrassing to wet on a friend's furniture.

The most commonly reported strategy to facilitate social interaction was that of increasing the frequency of entertaining at home, an environment in which the subjects were able to exercise some degree of control. Both washrooms and changes of garment were easily accessible.

Three (11.5%) women found that while participation in social activities with urinary incontinence was potentially more difficult, appropriate planning was critical to the satisfactory fulfillment of social engagements. In the view of one, even so, problems persist:

I can't say incontinence has really cut back my social life, but I make sure that I plan well ahead so that I'll have all the pads I need with me...This weekend I'm going golfing. I can guarantee that I'll be soaking wet before we finish nine holes. The big problem of course is that there aren't any washrooms on the greens.

Five (19.2%) subjects believed that the difficulties in effectively managing urinary incontinence had led to a curtailment of social activities. Says one:

It's changed my whole life...I can't go anywhere anymore. I used to go to Mass every day, but now I don't even try because I know I'll get wet. I ask the priest to come here. So I just make sure I head for the washroom to change as soon as we're back.

5.8.4 Strategies to Seek Further Information

To most subjects, the search for further in-depth information on urinary incontinence than what was provided by health care professionals was not a priority. They felt the knowledge they had was sufficient to enable them to care for themselves in a satisfactory manner.

Eighteen subjects (69.2%) stated they would be interested in watching a television program on urinary incontinence, although most of these same women would be reluctant to attend a seminar where they might be seen and identified as suffering from urinary incontinence.

One subject stated that she "always scanned" popular women's magazines in the hope that she would discover articles on incontinence. She was rewarded only once in 10 years of searching.

Another subject had seen and read the HIP [Help for Incontinent People] newsletter in her physician's office and had sent in a cheque for a subscription. None of the other subjects had ever heard or seen this publication.

5.8.5 Summary

Living with the effects of urinary incontinence in a lifestyle that promotes continued personal growth proved to be a goal not fully realized by some participants in this study. Many had made positive changes in lifestyle (e.g. quitting smoking). Most subjects were satisfied with the effectiveness of their own self-care and chose not to involve family members or significant others.

A major concern, however, proved to be effectively partaking in social activities. Some subjects identified positive ways of coping with the social difficulties of urinary incontinence, but a number of these women felt that urinary incontinence spelled an end to many enjoyable social activities. The social disengagement reported by these subjects is believed by Spiro (1978) to be a common response to urinary incontinence.

Searching for additional information relating to urinary incontinence was not a priority for this group, perhaps because they felt their present self-care strategies were at least adequate.

Chapter VI

DISCUSSION

The preceding chapter represents an effort to systematically organize data collected in 26 interviews of women with urinary incontinence into the framework suggested by Orem (1985) for assessing self-care in health deviations. Data analysis techniques involved both classical and theoretically-oriented content analysis to identify themes illustrating, exemplifying and relating Orem's general self-care requisites in health deviations to the specific case of urinary incontinence.

Subjects for the study were generally quite easy to recruit. Although many expressed concern about relatives, friends or neighbors learning of their incontinence, they did not display signs of embarrassment during the interview. The subjects seemed quite open when discussing this rather sensitive area with the investigator. This contrasts with the findings of Yarnell et al. (1981) who suggest that women are reluctant to discuss the condition but supports Taylor et al. (1986). Overall, subjects were motivated to carry out their self-care in an effective manner and wished to share their tips to "help others". Most subjects asked, at least once during the interview, how other women managed specific problems.

It is believed that this study met its objective of describing the various strategies used by older women to meet the self-care requisites imposed by urinary incontinence. An attempt was made to place the subjects' responses to urinary incontinence within the context of their general health status by reviewing their histories of chronic illness, use of medication, frequency of contact with health professionals, utilization of therapies and frequency of hospital admissions. This was important as a result of Orem's (1985) emphasis on integrated functioning.

It is significant that arthritis affected a much higher proportion (42.3%) of individuals within the sample than is found in the general population. Anderson (1980) states that approximately 3% of the female population is afflicted with arthritis. Although subjects varied widely in terms of the physical limitations imposed upon them by arthritis, a disease such as this may create functional deficits in self-care and may potentially place affected persons at greater risk for increased frequency of incontinent episodes. This speculation is supported by Vetter et al. (1981), who found that the severity of urinary incontinence increases when mobility decreases.

The study examined the subjects' awareness of the effects of urinary incontinence by recording their perceptions of etiology and specific symptoms. Attention to the results of urinary incontinence was reflected in the themes of: a)

urine containment strategies, b) personal hygiene strategies, c) strategies to manage urinary tract infections, d) strategies to manage skin problems, e) strategies to reduce the frequency or severity of episodes of urinary incontinence.

It is of note that the five themes identified in this category were specifically those referred to by Hamilton et al. (1985) in their description of the work of a nurse advisor on incontinence. While subjects in the present study were generally satisfied with the effectiveness of their self-care strategies, the availability of a nurse specialist in this area may have facilitated the early development of effective self-care techniques and eliminated some of the trial and error described by subjects. Burton (1984) points out the need for health care professionals involved with incontinence to have a working knowledge of the modern appliances and garments available; this, he says, may mean the difference between incapacitating incontinence and "acceptable incontinence".

Orem's (1985) self-care requisites dealing with effectively carrying out diagnostic, therapeutic and rehabilitative measures were described as the activities directed towards the procedures, medications and exercises which were frequently encountered in this sample. Low compliance was noted in the performance of Kegel exercises suggested by the subjects' physicians. Taylor et al. (1986)

report that these exercises are often not understood well by health care professionals and are usually taught incorrectly. Proper performance of pubococcygeal exercises can in fact lead to improved continence in individuals with simple stress incontinence. Nurses should be prepared to correctly instruct and assist clients in carrying out these exercises when it is appropriate to the individual's needs.

The psychological responses of subjects to urinary incontinence were identified and discussed. These included shame and embarrassment, a sense of loss of control and frustration and anger. These findings are supported by Sutherland (1976), Spiro (1978) and Long (1985). In a more detailed and scientific account of psychological responses to incontinence, Yu (1987) also found these feelings to be prevalent in incontinent individuals. The subjects were also found to engage in information management techniques. The fact that only 11.5% of subjects had revealed the presence of urinary incontinence to persons other than their health care workers and immediate family provides some evidence that secrecy is the most common information management technique used by this group. Very few subjects revealed the details of their condition to persons who were not directly witness to their daily care. It would be of interest to investigate in greater depth the information management strategies used by incontinent women to determine factors influencing utilization of selective concealment, therapeutic disclosure and preventive disclosure.

Finally, examination of Orem's (1983) self-care requisite of learning to live with urinary incontinence in a manner which promotes growth, generated themes dealing with lifestyle changes, the role of significant others, facilitating social interaction and seeking further information.

It was not possible to determine how successfully subjects had integrated this requisite into their everyday lives. Many subjects had made positive changes in lifestyle, but the majority resisted the assistance of significant others in their care and were reluctant to seek further information. This may be the result of low expectation of benefit, a belief that Taylor et al. (1986) report is often found in the incontinent.

The 26 subjects who participated in this study revealed, in a forthright and candid manner, the many difficulties urinary incontinence can create in everyday life. These women often demonstrated ingenious solutions to persistent problems.

Both objectively, from the investigator's frame of reference, and subjectively, from the sample's experience, it appeared that most of the physically-oriented self-care requisites imposed by urinary incontinence were being managed in a manner satisfactory to the subjects. Psychologically, however, the stigma attached to urinary

incontinence predisposes those with this condition to shame, embarrassment, anger, a sense of loss, and frustration. Because these feelings may stem in part from societal norms, there may be little that will ameliorate these negative self-perceptions. It would be helpful to examine psychological interventions to raise self-esteem in this group. Further research in this area is a definite need if we are to strive towards a high quality of life for older persons.

Orem's (1985) self-care requisites in health deviations were useful in providing a framework in which to organize the rich data generated in the interviews. The theory met Carney's (1972) criterion of being inclusive. All the data examined seemed to fit into at least one of the categories. On the other hand, some data seemed to be equally appropriate in several categories. This necessitated arbitrary decisions about categorization on the part of the investigator. Specifically, categories 2 and 6, were difficult to separate at times. A number of further difficulties with using Orem's (1983) theory also emerged as data analysis proceeded.

In her effort to make the theory of self-care comprehensive and applicable to all situations in which nursing may be involved, Orem (1985) has sacrificed specificity. The broad categories required interpretation at times by the researcher as to their true meaning. The

categories were often so broad and awkwardly worded as to lose their usefulness. As Anna, Christensen, Hohon, Ord and Wells (1978) state, the stumbling block was not the concept but the words used to explain it.

Although Orem (1985) denies that the physician plays a central role in her theory, it should be noted that categories 1 (seeking out and securing medical assistance), 3 (effectively carrying out medical prescribed measures) and 4 (being aware of the effects of medically measures prescribed by the physician) clearly delineate the importance of the physician's role in her theory. In none of the requisites is nursing mentioned specifically.

Melnyk (1982), too, feels that the role of the physician in this theory is far too great. She states that

nursing and the relationship of the nurse-patient require an external authority [the physician] to define, legitimate and energize them and the nurse is little more than an extension of the physician (Melnyk, 1982, p. 171).

There is no doubt that medical prescriptions often do influence and determine many of the self-care requisites of patients with health deviations, but in the case of urinary incontinence, they were not as far-reaching as, for instance, those described by Backscheider (1974) for diabetics.

It may be useful in the future to supplement Orem's (1985) six categories with one additional. As was recognized

in this study, many health deviations create profound social implications for the affected individuals. Many of the incidents related by the subjects in this study dealt with difficulties arising from social interaction. It may be useful to add a category which examines alterations in the manner in which one relates to others to preserve appropriate social interaction.

6.1 IMPLICATIONS FOR HEALTH PROFESSIONALS

Through the interview and data analysis process, a number of implications for health professionals have become apparent. It has been recognized in the literature that professionals have limited knowledge about the needs of those with urinary incontinence. The findings of the study suggest the following may be important areas for health professionals working with the incontinent to consider:

1. There is a definite need to improve patient education regarding both the medications and the exercises suggested to those with incontinence. This will help increase compliance, especially in the case of Kegel exercises.
2. Health education related to incontinence may be best provided in a non-threatening manner. Because patients often display concern about others recognizing them as incontinent, television programming or radio talk shows on the subject may

prove beneficial. This strategy may be helpful in removing some of the stigma of urinary incontinence.

3. Nurses need to be more aware of the importance of evaluating the efficacy of self-care strategies used by clients with urinary incontinence. Where there is believed to be an extant or potential self-care deficit, nurses should assess, plan and implement new self-care measures together with the patient. This may serve the dual purposes of increasing patient compliance and satisfaction and additionally contribute to the professional accountability of the health professional.
4. Patients have developed many creative and useful solutions to difficult problems with their own self-care. Health professionals should continue to identify the strategies employed by clients with urinary incontinence so that effective measures can be shared with others. This may engender a greater respect for patients as participants in health care and for their rights as consumers of health care.

6.2 DIRECTIONS FOR FUTURE RESEARCH

Studying the self-care responses of individuals with urinary incontinence will increase in importance as the population ages, urinary incontinence becomes more prevalent and health care dollars dwindle. The findings which have

emerged from this study indicate specific areas as being in need of further attention by nursing researchers.

1. Concerns of individuals with urinary incontinence could be more completely identified and ranked according to importance in a controlled and representative sample. These concerns could be compared with a control group of continent age cohorts.
2. Information management techniques appear to be frequently used by those with urinary incontinence. Such strategies could be examined more closely and related to constructs such as self-esteem.
3. A controlled study utilizing a group of incontinent individuals having mobility handicaps and comparing their self-care requisites and agency to incontinent persons without mobility handicaps would be useful in planning future nursing interventions to support incontinent individuals in the community.
4. Investigations of psychological interventions designed to improve self-esteem in those with urinary incontinence need to be undertaken to ensure a high quality of life for tomorrow's older age group.
5. Longitudinal studies of older persons prior to becoming incontinent of urine and following through subsequent periods of incontinence might yield valuable data about the manner in which incontinence affects lifestyle.

Chapter VII

CONCLUSIONS

This study examined the self-care strategies used by older women with urinary incontinence. Orem's (1985) six categories of self-care requisites in health deviations served as the framework through which prevalent themes were identified. A rich variety of responses were identified and described.

Subjects generally managed their physical self-care requisites in a manner satisfactory to themselves, but had difficulty in meeting Orem's (1985) requisites relating to positive self-concept and personal growth.

Because the frequency of urinary incontinence is expected to increase as the population ages and because urinary incontinence is related to quality of life, health care professionals must increase their efforts to promote the wellness of this segment of the population. It is hoped that this descriptive study will help to stimulate the interest of those dealing with older persons to investigate the impact of urinary incontinence and the interventions which may ameliorate its difficulties.

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Appendix A
INTERVIEW SCHEDULE

During the next hour, I would like to ask you a number of questions. You do not need to answer every question if you prefer not to. In order to better understand the information that you provide, I would first like to know a little bit about your general life situation.

1. What is your present marital status?
2. What is your age?
3. How long have you lived in Winnipeg?
4. Do you have any children?
5. How would you describe your general health? (Probes: disease states, use of medications, contact with health professionals, use of therapies, hospital admissions)
6. I believe that you have experienced some difficulty controlling the flow of urine. Can you describe for me some of the symptoms you have experienced? (Probes: onset, duration, frequency, severity, alleviating/exacerbating factors, under what conditions urinary incontinence occurs)
7. What do you feel has caused this difficulty? (Probes: age, previous surgery, number of pregnancies, medications, illness, weight, strokes)

8. What effect does the uncontrolled flow of urine have on your everyday activities? (Probes: restriction of work, social activities, sports, food or drink, additional time spent with health care providers)
9. Have you developed any new means of caring for yourself since you have experienced difficulty controlling the flow of urine? (Probes: toileting regimes, use of medications or aids, control of intake, laundry, clothing adjustments, use of health professionals, seeking out resources and literature)
10. Are there other persons who are aware of your difficulty controlling the flow of urine? (Probes: spouse, children, neighbors, co-workers, relatives, acquaintances, physician, nurse, other)
11. Sometimes it helps to discuss problems with other people. Have you shared your difficulty controlling the flow of urine with other individuals? (Probes: source of initiation, frequency of discussion, advice of others, following up on this advice, where the other received his/her information)
12. How do others assist you in managing the problems created by the uncontrolled flow of urine? (Probes: assist with laundry, pick up aids from store, ensure access to washroom facilities, advise you on medical/nursing/self-help assistance, others)
13. Have you found any changes in your relationships with others since you have had difficulty with controlling

the flow of urine? Could you describe the type of changes you perceive? (Probes: sympathy, revulsion, stigmatization, lack of understanding, helpfulness, others)

14. What would you find helpful in managing the difficulties created by the uncontrolled flow of urine? (Probes: medicare coverage for incontinence products, finding others who are incontinent to share information with, finding relevant literature, attending seminars/presentations on dealing with incontinence, others)

This concludes our interview. I would like to thank you for the time you have taken to answer my questions.

Appendix B

CONSENT TO BE A RESEARCH SUBJECT

Ms. Donna Goodridge is a graduate student in the Master's of Nursing program at the University of Manitoba. She is interested in speaking with women between the ages of 60-75 who have experienced difficulty controlling the flow of urine for at least three months. She hopes to learn how women like myself manage their care on a daily basis. This would be accomplished by asking me a number of questions about the effect the uncontrolled flow of urine has on my general health, my lifestyle, my relationships with others and on my feelings about yourself. While there may be no direct benefits to me through participating in this study, the information shared may be of benefit to nurses working with people who experience urinary incontinence in the future.

I understand that I have the right to refuse to participate without jeopardy to my care and that I may withdraw from this study at any time. I have received a copy of this form to keep. I further recognize that my signature indicates that I am willing to participate in this study.

After Ms. Goodridge has received my referral from the Urodynamics Lab, I will be contacted by telephone to see if

I am willing to participate. If I do agree, I will consent to be interviewed in a mutually agreeable place for approximately one hour. The questions I will be asked deal mainly with the way I care for myself. The interview will be tape-recorded, but my identity will remain confidential. No one but Ms. Goodridge will listen to the tape. The tape-recording will be kept in a locked filing cabinet. The information I provide will be retained for future analysis, but the tape-recording will be destroyed following transcription and at the completion of the study.

Confidentiality of the information I provide will be preserved. I will not be identified in any writings or publications. I understand that the results of the study will be available upon request.

I have read the above and have had the opportunity to ask questions. Ms. Goodridge can be reached at 237-2566 during working hours. Her home phone number is 222-1984. I agree to participate in this study.

_____ Subject

_____ Date

_____ Investigator

Appendix C

EXPLANATION OF THE STUDY

Ms. Donna Goodridge is a graduate student in the Master's of Nursing program at the University of Manitoba. She is interested in speaking with women between the ages of 60-75 who have experienced difficulty controlling the flow of urine for a period of at least three months. She hopes to learn how women like yourself manage their care on a daily basis. This would be accomplished by asking you a number of questions dealing with the effect that the uncontrolled flow of urine has on your health, lifestyle, relationships and feelings about yourself. The results of this study would prove helpful for the many nurses who deal with persons experiencing uncontrolled urine leakage.

While there are no direct benefits to you through participating in the study, the information which you provide will give more insight into the problems facing women with the uncontrolled leakage of urine. The study will consist of a one hour tape-recorded interview held at a mutually agreeable place. Confidentiality will be maintained both during and after the study. Tape-recordings will be securely stored in a locked filing cabinet. No one but Ms. Goodridge will listen to the tape, which will be

destroyed after transcription and at the completion of the study. You will not be identified in any writings or publications. The results of the study will be available to you upon request.

After Ms. Goodridge receives a referral from the Urodynamics Lab at the Health Sciences Centre, she will telephone you within two weeks to see if you are interested in participating. You have the right to refuse to be interviewed without any jeopardy to your medical care. Ms. Goodridge may be contacted at 237-2566 during working hours and at 222-1984 in the evening if you have any questions.