A PILOT STUDY EXAMINING THE FEASIBILITY OF A FOLLOW-UP INTERVENTION FOR MEN FOLLOWING A RADICAL PROSTATECTOMY

by.

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ABSTRACT

The overall aim of this pilot study was to determine the feasibility of conducting a large-scale randomized clinical trial of an expanded discharge follow-up intervention following radical prostatectomy (RP). A pretest-posttest 3-group experimental design was chosen as the research method. From a sample of convenience, 15 men who had a RP were randomly assigned to 1 of 3 groups who received a telephone call at 48 hours using the standard form; at 48 hours using an expanded form; or two telephone calls, at 48 hours and 10 days, using the expanded form. The men’s level of satisfaction with information and care received were measured pre-intervention and 30 days post-intervention. No significant results were found. The men’s symptom distress was measured using the Symptom Distress Scale (SDS) at 48 hours, 10 days, and 30 days post-discharge. No significant results were found as the men’s system distress lessened over time and a ceiling effect was observed. Recommendations for revising selected instruments and using other instruments are discussed. Field notes were maintained that described aspects of the study’s methodology pertaining to accessing a population of men. Findings suggest that to generate an adequate sample size for a full-scale study a sample of men will need to be recruited from other hospitals in the Lower Mainland and the eligibility criteria will need to be expanded.

The major information need found at 48 hours post-discharge was how to care for the Foley catheter. The main support need identified was emotional support while the men waited for their pathology report. At 10 days post-discharge the major information need described by the men was managing urinary incontinence and performing Kegel exercises. The major support need at this time involved providing emotional support as the men coped with urinary incontinence.
TABLE OF CONTENTS

Abstract ................................................................................................................................. ii

Table of Contents ................................................................................................................. iii

List of Tables ....................................................................................................................... vii

List of Figures ....................................................................................................................... viii

Acknowledgements ............................................................................................................. ix

CHAPTER ONE

1.1. Introduction .................................................................................................................. 1
1.2. Definition of Terms ....................................................................................................... 4
1.3. Background to the Problem ......................................................................................... 4
1.4. Purpose of the Pilot Study ......................................................................................... 6
1.5. Significance of the Pilot Study ................................................................................... 6
1.6. Research Questions ...................................................................................................... 7
1.7. Theoretical Framework ............................................................................................... 7
1.8. Organization of the Thesis .......................................................................................... 9

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction .................................................................................................................. 10
2.2. Radical Prostatectomy and Side Effects of Treatment ................................................ 10
  2.2.1. Radical Prostatectomy ......................................................................................... 11
  2.2.2. The Impact of Radical Prostatectomy on the Patient ........................................... 12
2.3. Post-Operative Self-Care Management .................................................................... 15
  2.3.1. Self-Care Management Following Surgery ......................................................... 15
  2.3.2. Self-Care Management Following Radical Prostatectomy ................................ 17
  2.3.3. Barriers and Facilitators to Managing Self-Care .................................................. 19
  2.3.4. Health Care Environments Impact on Discharge Teaching ............................... 20
2.4. Information and Support Needs ................................................................................. 21
  2.4.1. Information Needs of Prostate Cancer Patients .................................................. 22
  2.4.2. Support Needs .................................................................................................... 25
2.5. Support Strategies and Their Effectiveness for Providing Information and Support ........................................................................................................ 26
  2.5.1. Providing Written and Verbal Information ......................................................... 27
CHAPTER THREE: RESEARCH METHODS

3.1. Introduction .............................................................................................................. 42
3.2. Research Design ....................................................................................................... 42
3.3. Description of the Follow-up Telephone Call Intervention ..................................... 45
3.4. Sampling Procedures ............................................................................................... 46
3.5. Recruitment and Data Collection Procedures .......................................................... 47
3.6. Instrumentation ....................................................................................................... 49
   3.6.1. Socio-Demographic Questionnaire ................................................................. 51
   3.6.2. Satisfaction with Discharge Information and Care Scale ............................... 51
   3.6.3. Ability to Manage Self-Care ............................................................................ 51
   3.6.4. Management of Self-Care and Information and Support Needs Survey ........ 52
   3.6.5. Symptom Distress Scale ................................................................................. 53
   3.6.6. Expanded Prostate Cancer Index Composite ................................................. 54
   3.6.7. Utilization of Health Care Resources Tool ..................................................... 56
   3.6.8. Satisfaction with Post-Discharge Information and Care Scale ....................... 56
   3.6.9. Field Notes ....................................................................................................... 57
3.7. Data Analysis Procedures ....................................................................................... 58
3.8. Ethical Considerations ............................................................................................. 60
3.9. Limitations of the Pilot Study .................................................................................. 62
3.10. Summary ............................................................................................................... 62

CHAPTER FOUR: RESULTS

4.1. Introduction .............................................................................................................. 64
4.2. Feasibility ............................................................................................................... 64
   4.2.1. Sample Recruitment ....................................................................................... 64
   4.2.2. Sampling Procedures ..................................................................................... 66
   4.2.3. Variability of Study Instruments ..................................................................... 66
   4.2.4. Practical Aspects of the Follow-up Telephone Intervention ......................... 74
   4.2.5. Instrument Implementation ........................................................................... 75
4.3. Description ............................................................................................................. 76
   4.3.1. Sample ........................................................................................................... 76
   4.3.2. Differences between Study Groups ................................................................. 78
   4.3.3. Comparison of Satisfaction with Discharge Information and Care-Third Post-Operative Day ................................................................. 78
   4.3.4. Comparison of SDS-48 Hours Post-Discharge .............................................. 79
   4.3.5. Comparison of SDS-30 Days Post-Discharge ................................................. 79
   4.3.6. Comparison of EPIC-30 Days Post-Discharge ............................................... 80
CHAPTER FIVE: DISCUSSION

5.1. Introduction .............................................................................................................. 87
5.2. Feasibility of a Large Study Examining the Efficacy of a Follow-up Intervention ................................................................. 87
   5.2.1. Feasibility of Accessing the Population of Interest ............................................. 88
5.3. Appropriate Measures of Study Outcome Variables .................................................. 91
   5.3.1. Satisfaction with Discharge Information and Care Scale .............................. 92
   5.3.2. System Distress Scale .................................................................................. 95
   5.3.3. Expanded Prostate Cancer Index Composite ................................................. 97
   5.3.4. Utilization of Health Care Resources ......................................................... 98
   5.3.5. Satisfaction with Post-Discharge Information and Care Scale .................. 98
5.4. Major Information and Support Needs at 48 Hours Post-Discharge ...................... 99
5.5. Major Information and Support Needs at 10 Days Post-Discharge ....................... 104
5.6. Resources Used Post-Radical Prostatectomy ....................................................... 107
5.7. Recommendations for Future Research ............................................................... 109
5.8. Conclusion ............................................................................................................... 112

REFERENCES .................................................................................................................. 115

Appendix 1 – Letter of Invitation .................................................................................. 132
Appendix 2 – Consent Form .......................................................................................... 133
Appendix 3 – Socio-Demographic Questionnaire ....................................................... 135
Appendix 4 – Satisfaction with Discharge Information and Care Scale ..................... 137
Appendix 5 – 48 Hour Standard Care Follow-up Telephone Call Form ...................... 138
Appendix 6 – 48 Hour Expanded Follow-up Telephone Call Form ............................. 139
Appendix 7 – 10 Day Expanded Follow-up Telephone Call Form .............................. 143
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instruments Used to Collect Data</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>EPIC Subscale</td>
<td>55</td>
</tr>
<tr>
<td>3</td>
<td>Satisfaction with Discharge Information and Care Scale</td>
<td>67</td>
</tr>
<tr>
<td>4</td>
<td>SDS-48 Hours Post-Discharge (Expanded Format Telephone Call)</td>
<td>68</td>
</tr>
<tr>
<td>5</td>
<td>SDS-10 Days Post-Discharge (Expanded Format Telephone Call)</td>
<td>69</td>
</tr>
<tr>
<td>6</td>
<td>SDS-30 Days Post-Discharge</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>EPIC Urinary Assessment</td>
<td>71</td>
</tr>
<tr>
<td>8</td>
<td>Satisfaction with Post-Discharge Information and Care Scale</td>
<td>73</td>
</tr>
<tr>
<td>9</td>
<td>Reliability of Study Instruments-Cronbach’s Alpha</td>
<td>74</td>
</tr>
<tr>
<td>10</td>
<td>Socio-Demographic Characteristics of the Sample</td>
<td>77</td>
</tr>
<tr>
<td>11</td>
<td>Satisfaction with Discharge Information and Care Scale</td>
<td>78</td>
</tr>
<tr>
<td>12</td>
<td>SDS-48 Hours Post-Discharge</td>
<td>79</td>
</tr>
<tr>
<td>13</td>
<td>SDS-30 Days Post-Discharge</td>
<td>79</td>
</tr>
<tr>
<td>14</td>
<td>EPIC-30 Days Post-Discharge</td>
<td>80</td>
</tr>
<tr>
<td>15</td>
<td>Satisfaction with Post-Discharge Information and Care-30 Days Post-Discharge</td>
<td>80</td>
</tr>
<tr>
<td>16</td>
<td>Information and Support Needs at 48 Hours Post-Discharge</td>
<td>81</td>
</tr>
<tr>
<td>17</td>
<td>Information and Support Needs at 10 Days Post-Discharge</td>
<td>82</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. Pretest-Posttest Research Design......................................................44
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CHAPTER ONE

1.1. Introduction

Cancer of the prostate is the most common malignancy among males in Canada and the second most common cause of cancer-related deaths (National Cancer Institute of Canada, 2006). The Canadian Cancer Society predicts that 20,700 men will be diagnosed with prostate cancer in Canada in 2006, resulting in an estimated 4,200 deaths (Canadian Cancer Society, 2006).

Although mortality associated with localized prostate cancer is relatively low, coping with prostate cancer can be potentially difficult because of uncertainties surrounding the selection of optimal treatments (O’Rourke, 2001; Steginga, Occhipinti, Gardiner, Yaxley, & Heathcote, 2002; Wilt, 2002), and the impact of both the disease and the treatment on men’s quality of life (Herr, 1994; Kornblith, Herr, Ofman, Schur, & Holland, 1994; McPherson, Swenson, & Kjellberg, 2001; Ouellet, Hodgins, Pond, Knorr, & Geldart, 2003).

One treatment option that is chosen by many men diagnosed with prostate cancer is surgery, specifically, a radical prostatectomy. The period immediately following a RP is an anxious time for men as they begin to cope with the physical and psychological challenges of recovery. The current tendency towards short post-operative hospital stays has shifted the recovery stage from hospital to home, increasing patients’ self-care responsibilities (Giarelli, McCorkle, & Monturo, 2003; Klein & Kupelian, 2000; Ouellet et al., 2003). Patients who have limited knowledge about what to expect during recovery and how to manage home self-care tend to manage less successfully than patients who have received appropriate information and support prior to discharge (Burt, Caelli, Moore, & Anderson, 2005; Costello & Kiernan, 1993).

Although, health care professionals acknowledge the importance of providing information and
support to patients prior to their discharge from hospital, the majority of research indicates that health care professionals are often unable to offer adequate discharge planning (Jacobs, 2000; Ouellet et al.). An informal survey of the discharge teaching provided to men following a RP by health care professionals at a tertiary care facility in Vancouver, British Columbia revealed several limitations in the pre-discharge information provided (Davison, Moore, MacMillan, Bisaillon, & Wiens, 2004), including inconsistencies in the kind and amount of information given to men before discharge.

The reported benefits of providing information and support to men diagnosed with prostate cancer are as follows: enhanced active participation in treatment decisions (Davison et al., 2002; Davison, Goldenberg, Gleave, & Degner, 2003); improved comprehension of the cancer experience (Carlson, Ottenbreit, Pierre, & Bultz, 2001; Scura, Budin, & Garfing, 2004); reduced stress (Moore & Estey, 1999); increased collaboration with home care (Burt et al., 2005; Langwade, 2000); increased perceived control over the cancer experience (Wong et al., 2000); and facilitated management of side effects and complications associated with cancer surgery (Hughes, Hodgson, Muller, Robinson, & McCorkle, 2000; McGlynn et al., 2004; Moore & Estey; Phillips et al., 2000). However, the information and support needs of men in the immediate post-operative period following a RP are not well documented. Identifying these specific needs is important because it will enhance health care professionals’ understanding of the concerns men face following RP, and help determine how best to assist patients in effectively managing these concerns.

Several interventions have been identified as beneficial in supporting physical and psychological recovery and promoting satisfaction with information received about home self-care practices following RP (Costello & Kiernan, 1993; Edmonds, 1991; McGlynn et al., 2004;
Moore & Estey, 1999). These interventions include providing written information that coincides with a patient teaching checklist to standardize patient teaching, and providing a follow-up discharge telephone call (Davison et al., 2004). These interventions now comprise the Discharge Program Following a Radical Prostatectomy used on a urology unit at Vancouver General Hospital (VGH), a tertiary care teaching hospital in Vancouver, British Columbia, Canada.

The Discharge Program Following a Radical Prostatectomy, which began in the spring of 2001, has been successful in standardizing discharge teaching provided to men who have had an RP. A patient evaluation of this program indicated that, out of a sample of 100 men, 49% "strongly agreed" and 45% "agreed" that information provided during their hospitalization helped them to manage home self-care practices following discharge. The majority of the men also indicated they were either "very satisfied" (73%) or "moderately satisfied" (21%) with the information provided by the staff on the urology unit (Davison et al., 2004). A follow-up telephone call at 48 hours post-discharge, which is part of the program, was perceived to be either "very useful" (52%) or "somewhat useful" (31%). Forty-six per cent indicated that the most "useful" reason for the telephone call was that it showed that "someone cared." The call also allowed the men to ask questions (Davison et al.). However, some of the men indicated that most of the physical complications of surgery (for example, urinary-catheter-related problems) occurred after the 48-hour telephone call. This finding suggested that a follow-up call scheduled at a later time during the post-operative period could be beneficial.
1.2. Definition of Terms

The following terms were utilized in this study:

**Standard Care** consists of a follow-up telephone call at 48 hours post-discharge using a short form that asks how patients have been coping since their discharge and whether they require assistance.

**Expanded Care** consists of two follow-up telephone calls, at 48 hours post-discharge and 10 days post-discharge, using an expanded form that identifies how patients are managing specific self-care practices related to a RP and ascertains whether additional information is needed.

1.3. Background to the Problem

Since the spring of 2001, the nurses on the urology unit at VGH have implemented the standard care telephone intervention with men following an RP at 48 hours post-discharge. During this call, a nurse asks the patient how he has been managing since his discharge and if he requires assistance. Although a program evaluation found that these calls were perceived as indicating that the nurse “cared,” the information needs that the men expressed during the calls were not documented. In addition, this type of call did not identify how the men were managing specific self-care practices and whether any additional information about specific self-care practices was needed.

The program evaluation also suggested that conducting a follow-up telephone call at a point later than 48 hours post-discharge may be beneficial because some of the men reported that physical complications, such as urinary catheter-related problems, occurred later in the discharge period. The need for additional follow-up by a health care professional was highlighted by the fact that 25% of the 100 men in this study required additional medical assistance and made at
least one emergency room visit during the first month following discharge for urinary-catheter-related problems. Consequently, it was hypothesized that it might be beneficial to implement a follow-up telephone call during the second week following discharge, when the men’s Foley catheter and incision staples had been removed. Examining the effect of the timing of telephone calls was expected to provide valuable data about the men’s ability to manage home self-care, their use of health care resources, satisfaction with care, and additional information and support needs. Further knowledge about the timing of telephone calls would also help to guide nurses in providing quality post-discharge care to this particular cohort of men.

A review of existing literature revealed eight studies evaluating nurse-initiated post-operative discharge follow-up telephone calls (Burt et al., 2005; Costello & Kiernan, 1993; Davison et al., 2004; Johnson, 2000; Lee, Wasson, Anderson, Stone, & Gittings, 1998; Mishel et al., 2002; Ouellet et al., 2003; Roebuck, 1999). However, only four of these studies evaluated this intervention with RP patients (Burt et al.; Costello & Kiernan; Davison et al.; Mishel et al.). Two of the studies found that subjects were “pleased to hear from a nurse” (Costello & Kiernan, p. 56) and thought that the calls showed that “someone cared” (Davison et al., p. 487). These studies further found the telephone follow-up call to be an effective intervention in terms of answering questions, providing support, and reinforcing discharge teaching.

Mishel et al. (2002) found that men who received a weekly, nurse-initiated psycho-educational intervention by telephone for eight weeks, either directly or indirectly through a family member, improved significantly with regards to urinary incontinence, cognitive reframing, and their ability to solve problems. Burt et al. (2005) found telephone follow-up to be a useful intervention to promote adjustment following RP and to aid in relieving stress associated with treatment side effects and unanswered questions. To date, no studies have been conducted to
examine the effects of the timing of follow-up telephone calls made following a RP on men's ability to manage home self-care, use of health care resources, and satisfaction with care. These outcome measures were hypothesized to be important variables because they provide insight into how well prepared men are to manage self-care at home and to identify if additional interventions may be needed.

1.4. Purpose of the Pilot Study

The purpose of this pilot study was twofold: (1) to test and refine a research protocol designed to explore the impact of an expanded discharge follow-up intervention on men following RP, through the assessment of the feasibility and appropriateness of subject recruitment, sampling procedures, and data collection protocols, including instrumentation; and (2) to identify the self-care information and support needs of men following a RP at 48 hours post-discharge and 10 days post-discharge.

1.5. Significance of the Pilot Study

This pilot study was intended to help determine the feasibility of conducting a large-scale randomized clinical trial of an expanded discharge follow-up intervention following RP by enabling the researcher to clarify whether or not subject recruitment, sampling procedures, follow-up telephone call intervention, data collection, instrumentation, and data analysis were feasible and appropriate. This pilot study offers much needed research on nurse-initiated follow-up telephone support for men following RP. This research is important because telephone follow-up is potentially an efficient way of providing post-discharge care during the initial post-operative period, when the men must manage a urinary catheter and deal with potential side effects related to RP. The potential side effects of RP included pain, urine leakage, and bladder spasms during the initial recovery period, and urinary incontinence following the removal of the
urinary catheter. The telephone intervention also constitutes an opportunity to provide information and support that may enhance men’s management of home self-care and ultimately improve their well being.

1.6. Research Questions

The research questions for this pilot study are:

1. What are the barriers and facilitators to accessing a population of men following a RP to obtain a study sample for a trial of a follow-up phone call intervention in the discharge period?
2. What are the barriers and facilitators of the sampling procedures used to recruit the study sample?
3. To what extent are the selected study instruments appropriate and sensitive measures of the outcome variables of interest?
4. What are the self-care information and support needs of men following a RP 48 hours post-discharge and 10 days post-discharge?

1.7. Theoretical Framework

The theoretical framework for this pilot study is based on Orem’s conceptual framework of self-care. Within this framework, self-care is perceived as human behaviour that is self-directed and deliberate, and learned through communication and interpersonal relations (Orem, McLaughlin Renpenning, & Taylor, 1995). Individuals are perceived as having the right and responsibility to engage in self-care to maintain their own “life, health, and well being” (p. 304). The practice of self-care requires that the individual possess certain kinds of knowledge, such as awareness of “one’s own functioning, about needed self-care, and about the operations through which self-care is accomplished” (Orem et al., p. 237). To achieve self-care, it is important for an individual to possess a wide variety of skills and have access to appropriate health care
resources (Orem et al.). Ideally, a balance needs to exist between what an individual knows and how he/she practices self-care (Orem et al.).

At times during illness and recovery, patients may need assistance in learning and performing self-care activities. Nurses are among the health care professionals responsible for providing such assistance. Orem believed that an important part of the nurse's role was to create an environment in which teaching and support were provided to help patients achieve healthy outcomes (Orem et al., 1995).

Using Orem's model as a framework, to effectively engage in self-care activities following a RP, men must possess the knowledge and skills necessary to manage home self-care, including Foley catheter care, coping with bladder spasms, surgical incision care, proper food and fluid intake, pain control, proper activity level, bowel regime, and Kegel exercises to control urinary incontinence once the Foley catheter is removed. Prior to discharge from the hospital, it is essential that patients be provided with adequate and appropriate information in order to perform these self-care activities. An important part of the nurse's role following a RP is to educate the men about self-care and prepare them to cope with common post-operative occurrences, such as blood in the Foley catheter, bladder spasms, leakage around the catheter, skin problems, pain, fatigue, constipation, and urinary incontinence.

Self-care activities for men following RP are different at 48 hours versus 10 days. At 48 hours post-discharge, the men have a surgical incision and a Foley catheter to manage, and perhaps bladder spasms to contend with. At 10 days post-discharge, they usually have their Foley catheter removed and may have to cope with urinary incontinence and perform Kegel exercises to strengthen the pelvic muscles that aid in bladder control. A follow-up telephone call may be a beneficial intervention to assess how men are coping with home self-care, to provide
additional information and support if needed, and to identify any concerns they may be experiencing at the time of the follow-up telephone call. Ultimately, the aim of the follow-up telephone call is to “promote life, health, and well being” for men following RP, all fundamental to Orem’s theory of self-care (Orem et al., 1995, p.170).

1.8. Organization of the Thesis

Chapter One highlights the background information that prompted this pilot study, the purpose of the pilot study and the significance that it has for nursing practice. In addition, the theoretical framework that guided this pilot study is presented. Chapter Two highlights literature related to RP and side effects of treatment, the impact of RP on the patient, post-operative self-care management, the information and support needs of cancer patients, support strategies and their effectiveness for providing patient information and support, and the use of follow-up telephone calls with discharged surgical patients. Chapter Three presents the methods used in the pilot study including the research design, sampling procedures, description of the follow-up telephone call intervention, data collection procedures, instrumentation, data analysis procedures, ethical considerations, and study limitations. The results of this pilot study are presented in Chapter Four, and in Chapter Five, the discussion of these results are presented. Finally, in Chapter Six the implications of the results for nursing practice and future research are presented. In addition, the final chapter presents the researcher’s conclusions, limitations of the study, and a summary of the pilot study.
CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

In the literature review, six areas will be discussed: (a) RP and side effects of treatment, (b) the impact of RP on the patient, (c) post-operative self-care management, (d) information and support needs of patients, (e) support strategies and their effectiveness for providing patient information and support, and (f) use of follow-up telephone calls with discharged surgical patients.

2.2. Radical Prostatectomy and Side Effects of Treatment

The number of diagnosed cases of prostate cancer continues to rise due to advances in screening for localized prostate cancer (Drachenberg & Bell, 2002). Currently, the treatment options available to treat localized prostate cancer include: RP, which involves the surgical removal of the entire prostate gland, including the true prostatic capsule, the seminal vesicles, and a part of the bladder neck (Waxman, 1993); watchful waiting, the conservative management for localized prostate cancer in which no therapy is provided until the patient becomes symptomatic from locally advanced or metastatic disease (Drachenberg & Bell); radiation therapy, which involves external beam radiation therapy; and brachytherapy, which involves the placement of permanent radioactive seeds into the prostate gland (Williams & Love, 1996).

The most effective method to treat localized prostate cancer remains the subject of some controversy (Bhatnagar, Stewart, Bonney, & Kaplan, 2004; Klein & Kupelian, 2000; O'Rourke, 2001; Steginga et al., 2002; Wilt, 2002). A general consensus, however, has been reached on important prognostic indicators, including serum prostate-specific antigen (PSA) level at diagnosis, tumour grade, and clinical stage as determined by a digital rectal exam (Klein &
Kupelian). Treatment options are therefore determined according to the inherent aggressiveness of the disease, in conjunction with the overall health status of the individual (Koch et al., 1998). Given that prostate cancer predominantly affects older men, co-morbid illnesses may impact the choice of treatment and the symptoms experienced post-treatment (McPherson et al., 2001).

Quality of life for men with prostate cancer is impacted regardless of the treatment selected (McPherson et al., 2001; Rondorf-Klym & Colling, 2003; Willener & Hantikainen, 2005). It is well documented in the literature that the physical side effects associated with RP include urinary incontinence and sexual dysfunction, which are key determinants for quality of life (Herr, 1994; Kornblith et al., 1994; McGlynn et al., 2004). It is therefore essential that both the benefits and side effects of treatment be thoroughly discussed with patients prior to treatment selection (Madalinska et al., 2001).

2.2.1. Radical Prostatectomy

Radical prostatectomy, considered the gold standard of treatment, is the surgical intervention for localized prostate cancer. Candidates are predominantly in good health with few or minor co-morbidities and have at least a 10 to 15 year life expectancy (Drachenberg, 2000; Moul et al., 2002). The surgical procedure involves manipulation of the abdominal and pelvic organs. Because of its extreme proximity to the prostate gland, the urethra is particularly vulnerable to injury during this surgery, potentially affecting urinary control (McPherson et al., 2001). As such, all men who undergo a RP will experience a temporary loss of urinary control of varying degree and duration. Where possible, the preservation of urethral length and supporting structures during the operation can help to preserve continence (Klein & Kupelian, 2000).
Williams and Love (1996), Butler, Downe-Wamboldt, Marsh, Bell, and Jarvi (2001), and McGlynn et al. (2004) report that the most significant side effect related to surgical treatment is urinary incontinence, and that the overall incidence of complete incontinence following treatment occurs most frequently in men 70 years of age and older. According to Butler et al. and Holmboe and Concato (2000), men who have undergone a RP consider incontinence to be the most disturbing side effect and the most disabling to their quality of life. In a large retrospective study with men following an RP, Catalona, Carvalhal, Mager, and Smith (1999) reported varying incontinence rates ranging from 31% to 92%. Although approximately 90% of men regain complete urinary control, the process may take up to one year (Maxwell, 1993).

Radical prostatectomy is also associated with erectile dysfunction because the neurovascular bundles involved in erection lie adjacent to the prostate gland and may be damaged during the operative procedure (McPherson et al., 2001). Nerve-sparing RP, which leaves the nerves responsible for erections intact at least on one side, is currently recommended, when possible (Klotz, 1999; Waxman, 1993). Even with this surgical approach, erectile dysfunction occurs in 40% to 60% of men who have undergone nerve-sparing procedures (Schover, 1993). Potency preservation is also dependent on the age of the patient and any co-morbid diseases that may be present (Mulcahy, 2000).

2.2.2. The Impact of Radical Prostatectomy on the Patient

Stress associated with cancer has been found to increase during the treatment phase (Cassileth et al., 1985). There is evidence that the period following surgery for cancer can be extremely distressing for patients and may continue for months following discharge from hospital (Giarelli et al., 2003; Oberst & James, 1985; Oberst & Scott, 1988). Moore and Estey (1999) supported this finding and have observed that the post-operative phase is the most stressful time
for men who have undergone an RP. This may be attributed to uncertainty about treatment efficacy (Moore & Estey), the post-operative body undergoing major physiological adjustments (Oberst & James), and lack of knowledge about what to expect in the immediate post-operative period (Burt et al., 2005; Moore & Estey). Following an RP, men usually have to wait approximately 7 to 10 days for pathology reports, and this uncertainty can create additional emotional distress (Phillips et al., 2000). Several studies with breast and gynaecological cancer patients indicate that continued uncertainty decreases quality of life and adversely impacts psychosocial adjustment and emotional well being (Hilton, 1994; Mishel, Hostetter, King, & Graham, 1984; Mishel & Sorenson, 1991). However, research determining the effects of continued uncertainty with men following RP is not well researched. What is known is that coping with side effects related to RP can cause considerable anxiety and stress (Bennett & Badger, 2005; Burt et al.; Sommers & Ramsey, 1999). In patients with prostate cancer, a significant correlation has been found between treatment-induced side effects and depression, stress, and alterations in lifestyle and personal relationships (Bennett & Badger; Burt et al.; Sommers & Ramsey). However, Willener and Hantikainen (2005) in a study examining the individual quality of life (QOL) of 11 men who had undergone a RP 3 to 4 months earlier found that the men in their study had a high QOL value. In addition, the authors note that erectile dysfunction and urinary incontinence did not appear to have a negative impact on QOL. Contradictions found in the research pertaining to the impact of side effects of RP on QOL suggest that further research in this area is needed. Due to the small sample size of this study, findings must be viewed with caution.

In a qualitative study, Butler et al. (2001) explored the meanings associated with urinary incontinence and sexual dysfunction and the impact on quality of life of 21 men (mean age 62
years) following RP. The authors noted that urinary and sexual difficulties most often occur once the men were at home, at a time when they lacked the resources to manage the impact of these side effects. The use of a urinary catheter during the first several weeks was found to impact the quality of life for 48% of the men, because it restricted their physical activity. Butler and colleagues also found that the initial removal of the Foley catheter, which occurs 1 to 3 weeks following a RP, was a "traumatic experience" because the men were not prepared for the effects of incontinence. Seventeen men (81%) reported that they found the use of incontinence pads problematic in terms of size, cost, length of time required, and perceived visibility. The effects of urinary incontinence also impacted the men's body image, with 52% reporting that they were adversely affected by dribbling, visible wetness, urine odour, and limited clothing options. In addition, 43% reported that their social activities were restricted by their urinary incontinence. The ability to have an erection was also a major concern, as 33% experienced no erections. Twenty-four percent found the uncertainty surrounding how much and at what time sexual function would return highly problematic, and four of the men (24%) identified that their sexual relationship was simply "gone" (p. 285). The majority of the men (57%) in this study noted that the cancer experience, the uncertainty involved, and concerns about the risk of recurrence, had altered their view of life. One limitation of this study is that the time from treatment when side effects occur was not reported, making it is difficult to evaluate how long patients were impacted by treatment.

These findings are supported by Burt et al.'s (2005) who explored the experiences and post-operative needs of 17 men following RP, throughout the discharge period, and up to 12 months post-surgery. Participants expressed a strong dislike for the Foley catheter and referred to it as the most distressing part of the RP experience. They also described that pain from the
movement of the Foley catheter had a detrimental impact on their post-operative activity levels, and this in turn precipitated post-operative complications. Once the Foley catheter had been removed, the men expressed feelings of hope that their urinary incontinence would be temporary, along with feelings of frustration and embarrassment. The effects of treatment, particularly on erectile function, had a profound impact on the men’s sexuality, although they did not find this as distressing as managing the Foley catheter. Although Burt and colleagues describe and document participants’ reported experiences, they do not identify which particular experiences were described at different points in time, preventing any correlations between patient needs and outcomes at the various time points during recovery.

2.3. Post-Operative Self-Care Management

In this pilot study, self-care management is described as the ability to engage in and manage personal care following a RP. In this section, the barriers to and facilitators of self-care management following RP are discussed.

2.3.1. Self-Care Management Following Surgery

All patients, regardless of the type of surgical procedure, experience similar concerns during the immediate post-operative period (Bradshaw, Pritchett, Bryce, Coleman, & Nattress, 1999). The ability to manage post-operative self-care practices is essential to promote healthy post-operative outcomes. In this section, general post-operative self-care practices are discussed.

Fatigue is a common and problematic post-operative symptom (Arai et al., 1999; Westman, Legeby, & Ekblom, 1996). Although it is normal to feel tired after any surgery, the implementation of a gradual increase in physical activity, such as walking, is an important self-care practice (Phillips et al., 2000). If a patient engages in strenuous activity too soon following surgery, strain may be placed on the operative area, causing pain or injury. However, if a patient
fails to engage in any physical activity, complications such as pneumonia or deep vein thrombosis may develop. Therefore, setting incremental goals for resuming the usual activities of daily living and exercise are essential post-operative self-care management practices.

Pain is another common symptom related to surgical treatment (Butler et al., 2001; Cox & O'Connell, 2003; Galloway & Graydon, 1996). Pain management, which involves learning how to evaluate pain and how to administer pain medication properly, is an important self-care practice that patients need to understand (Giarelli et al., 2003). Patients who do not comprehend the principles of pain management may be unable to control their pain adequately, and this in turn may have an impact on other self-care practices, such as the gradual increase in activities and exercise. For some patients, the use of narcotics may induce constipation. Clearly, an understanding of pain management and potential side effects are essential to effective self-care (Hughes et al., 2000).

Care of the surgical incision is another important post-operative self-care practice (Cox & O'Connell, 2003; Hughes et al., 2000; Phillips et al., 2000). Care of the surgical incision at home includes; keeping the incision clean and dry, identifying the signs of infection, and learning how to change a bandage if the incision has drainage (Cox & O'Connell). Patients also need to be aware of proper bathing techniques after surgery. It is recommended that the surgical incision not be immersed in water until it is well approximated to reduce the risk of infection. Patients also need to be cognizant of the signs and symptoms of wound infection, and know when to seek medical attention (Hughes et al; Robinson et al., 1999). In addition, if the patient goes home with staples, he/she must be clearly informed about when to see a health care professional to have the staples removed.
Eating a balanced diet and maintaining an adequate fluid intake are essential self-care practices necessary for successful recovery during the immediate post-operative period (Hughes et al., 2000). Although loss of appetite is a common post-operative symptom, patients need to be informed about the importance of eating a balanced diet to promote wound healing, prevent constipation, and restore necessary energy levels (Cox & O'Connell, 2003; Galloway & Graydon, 1996). Inadequate diet and insufficient fluid intake can contribute to poor wound healing and cause fatigue, malaise, and constipation.

Preventing constipation is another important element of post-operative self-care (Cox & O'Connell, 2003; Hughes et al., 2000). Constipation may result from inadequate fluid intake, a diet low in fibre, use of narcotic pain medication, and reduced activity (Hughes et al.). Furthermore, if constipation is not managed, straining during bowel movements may create pressure on the surgical site and cause discomfort.

2.3.2. Self-Care Management Following Radical Prostatectomy

Beyond the self-care practices discussed above, men who have undergone an RP have specific self-care management practices related to this surgical procedure. These self-care practices include contending with and managing rectal pain associated with the operative procedure (Moore & Estey, 1999). This can be achieved by using cushions to decrease the rectal pain. In addition, the men must also be aware that it is important to alleviate pressure on the internal incision and diminish the risk of bleeding by reducing the amount of time sitting (Moore & Vandall-Walker, 2001).

Following an RP, it is particularly important that men do not strain to have a bowel movement as this places pressure on the internal incision and may cause damage and bleeding. Therefore, men need to be cognizant that they should drink 1.5 to 2 litres of fluid per day to help
prevent constipation and to reduce the need to strain (Moore & Vandall-Walker, 2001). In addition, taking a stool softener can aid with normal bowel function.

Another self-care practice specific to men who have undergone an RP is the care of an indwelling urinary catheter. Patients are discharged home with a Foley catheter that remains insitu for 1 to 3 weeks to allow the internal incision to heal (Maliski, Heilemann, & McCorkle, 2001; Moore & Estey, 1999; Robinson et al., 1999). Self-care practices related to the Foley catheter include properly securing the catheter to the leg to prevent movement that will cause undue pain in the urethra and penis (Jakobsson, Hallberg, & Loven, 1997). The men also need to manage two urine collection bags. This requires learning how to hook the Foley catheter to the collection bags, switching from a smaller day-bag to a larger night-bag, washing out the collection bags when not in use, and draining the collection bags (Giarelli et al., 2003; Moore & Estey; Phillips et al., 2000). In addition, they may have to deal with painful bladder spasms, which are contractions of the bladder muscle caused by irritation from the catheter. Bladder spasms can cause urine leakage around the catheter, which is a considerable inconvenience (Moore & Estey; Moore & Vandall-Walker, 2001). Men need to be aware of how to deal with these painful spasms by using prescribed antispasmodics and/or immersing in a shallow warm bath (Moore & Vandal-Walker). Self-care also includes cleaning around the catheter at the tip of the penis to prevent small amounts of blood, mucus, and crusting from causing skin irritation (Maliski et al.).

Once the Foley catheter has been removed by a health care professional, self-care practices include managing urinary incontinence and regaining continence (Maliski et al., 2001; McGlynn et al., 2004). Self-care practices used to manage urinary incontinence include wearing a pad to absorb the leakage of urine and dealing with urine odour, visible wetness, and skin
rashes related to incontinence (Burt et al., 2005; Butler et al., 2001; Giarelli et al., 2003). Other self-care practices include scheduled bathroom visits (approximately every two hours), staying near a bathroom whenever possible, restricting fluid intake, and limiting activities (Engberg et al., 1995). Performing pelvic muscle exercises, called Kegel exercises, may reduce urinary incontinence by strengthening the muscles that aid in bladder control (Butler et al.; Engberg et al.; Hughes et al., 2000; Giarelli et al.; Maliski et al; McGlynn et al.; Moore & Vandall-Walker, 2001; Robinson et al., 1999). Men need to be properly taught how to perform Kegel exercises by a health care professional in order to gain optimal benefits from them.

In addition to the various physical challenges created by urinary incontinence, research has identified that this condition can cause confusion, depression, anger, and a decrease in emotional well being (Braslis, Santa-Crutz, Brickman, & Soloway, 1995; Moore & Estey, 1999), and has been associated with social isolation (Engberg et al., 1995). Clearly nurses need to be sensitive and aware of the profound impact that urinary incontinence has upon the men’s psychological well being. Moreover, it remains a challenge for nurses to adequately provide psychological support due to short hospital stays following RP. Nurses need to be creative and implement strategies that offer support to men as they learn to cope with the challenges associated with the early recovery stage.

2.3.3. Barriers and Facilitators to Managing Self-Care

There are many potential barriers to managing self-care, which may affect adjustment and recovery following RP. Uncertainty about managing post-operative self-care practices because of lack of accurate information or understanding (Galloway & Graydon, 1996; Mishel et al., 2002; Ouellet et al., 2003; Phillips et al., 2000), for example, can adversely affects patients’ decision-making and problem-solving abilities (McGlynn et al., 2004; Mishel et al.). The provision of
discharge information that lacks clarity or fails to meet the patient’s needs has also been identified as a significant barrier to successful self-care management (Cox & O’Connell, 2003; Hughes et al., 2000; Moore & Estey, 1999), as have the poor timing of discharge information and patients’ inability to retain discharge information (Krupat, 1986; Valanis & Rumpler, 1985). The patient’s anxiety level may also negatively influence knowledge retention (Burt et al., 2005).

Facilitators for successful self-care following surgery include providing appropriate and accurate information, tailored to particular self-care needs (Hughes et al., 2000). Ensuring that patients who have undergone an RP understand self-care practices prior to discharge empowers them by enhancing their ability to cope with recovery and its various challenges (Moore & Estey, 1999). It may also be beneficial to use follow-up contact between patients and health care professionals as an opportunity to evaluate post-discharge information and support needs, and to ensure that successful self-care practices are in place.

2.3.4. Health Care Environments Impact on Discharge Teaching

In the current health-care environment, considerable emphasis is placed on discharge teaching. Discharge teaching has increased in complexity because of patient acuity at time of discharge (Ouellet et al., 2003; Weissman & Jasovsky, 1998), which is largely a result of shortened hospital stays (Costello & Kiernan, 1993; Henderson & Phillips, 1996; Jacobs, 2000; Keetch & Buback, 1998; Ouellet et al.). Indeed, discharge teaching has become a health-care priority (Henderson & Phillips; Hughes et al., 2000; Phillips et al., 2000; Moore & Estey, 1999) and is an essential component in the successful recovery of patients.

Both patients and health care professionals, however, experience particular challenges in relation to discharge teaching. As previously discussed, research indicates that the stress associated with the cancer experience may make the absorption and retention of information
particularly difficult for patients diagnosed with cancer, which in turn influences patient outcomes and creates the need for more structured and repetitive information dissemination strategies (Burt et al., 2005; Heyman & Rosner, 1996; Lee et al., 1998; McGregor, 2003). For patients recovering from RP, poor timing of information (Valanis & Rumpler, 1985), inability to understand the medical components of the information (Estey, Kemp, Allison, & Lamb, 1992), inability to recall information (Feldman-Stewart, Brundage, Van Manen, Skarsgard, & Siemens, 2003), perceived or actual lack of professional support (Krol, Sanderman, & Suurmeijer, 1993), and the provision of inadequate self-care information (Moore & Estey, 1999) are all factors that impact post-operative recovery (Moore, Griffiths, & Hughton, 1999). As a result many patients are discharged with knowledge deficits, which may lead to psychological distress and negatively impact their ability to manage complications and self-care needs (Burt et al.; Hughes et al., 2000; Ouellet et al., 2003).

2.4. Information and Support Needs

Research indicates that men who have undergone an RP want to receive information and support during the immediate post-operative period (Butler, Downe-Wamboldt, Marsh, Bell, & Jarvi, 2000; Davison et al., 2004; Feldman-Stewart et al., 2003; James, James, Davies, Harvey, & Tweddel, 1999; Phillips et al., 2000). Furthermore, studies show that providing appropriate and adequate pre-discharge information, in conjunction with providing support during the recovery phase, enhances men’s coping and problem solving following an RP (McGlynn et al., 2004; Mishel et al., 2002). Research has also shown that health care professionals often fail to meet the information needs of men following RP (Moore & Estey, 1999; Phillips et al.). In the following section, the information and support needs of prostate cancer patients are reviewed.
2.4.1. Information Needs of Prostate Cancer Patients

The type of information patients require changes over the cancer trajectory and, therefore, needs to be assessed regularly (Harris, 1998; Lavery & Clarke, 1999). Being informed about the side effects of treatment has been found to be the major information need identified by men during the immediate post-RP period (Heyman & Rosner, 1996; Lavery & Clarke; Moore & Estey, 1999; Phillips et al., 2000; Burt et al., 2005). Several studies have examined men's experiences and post-operative needs following RP (Phillips et al.; Burt et al.). Major information needs identified to be important by men included care of their Foley catheter, management of bladder spasms, pain, post-operative fatigue, diet, activity level, urinary incontinence, and erectile dysfunction. Although, the 17 men in Burt et al.'s study were contacted at four different time points during the first 12 months following RP, the authors failed to differentiate at what time frame the specific information needs were identified by the men. This data would have provided valuable information about the specific information needs of this population at each of the time points.

Despite receiving information during the pre-operative period and during treatment, several studies have shown that the stress of the RP experience impeded men's ability to recall and process the information provided to them (Lavery & Clarke, 1999; Burt et al., 2005; Moore & Estey, 1999). Twenty couples, 10 being post-RP in Hymen and Rosner's (1996) study reported that they had to continuously up-date their knowledge following RP. This finding suggests that information requirements need to be re-evaluated and information reviewed during the initial period following surgery to ensure that patients fully understand treatment-related side effects (Feldman-Stewart et al., 2003; Fitch, Gray, Franssen, & Johnson, 2000; Morse & Fife, 1998). This research also suggests that conventional strategies alone may not be sufficient in
addressing men’s information needs post-RP. This emphasizes the need for follow-up during the initial post-discharge period to review information, answer questions, and provide support.

Several researchers have highlighted the information needs perceived to be lacking by men following RP (Moore & Estey, 1999; Phillips et al., 2000). Specifically, the men in these two studies identified that they lacked information about how to care for their Foley catheter, manage bladder spasms and acute pain, signs and symptoms of infection, and manage urinary incontinence and erectile dysfunction. Moore and Estey, who studied a sample of 63 men approximately eight weeks post-RP found that lack of information was an important factor influencing men’s adjustment during the immediate recovery period. The authors reported that lack of information had a negative impact upon the men’s QOL and healthy post-operative recovery. All of the men (n=63) in their study felt ill prepared to manage their Foley catheter and were shocked with the degree of urinary incontinence immediately after the Foley catheter had been removed. Men who were sexually active prior to RP found it difficult to adjust to the erectile dysfunction. Some of the men in their study reported that if they had been better informed prior to discharge that they would have been better prepared to cope. The small sample size and relatively homogeneous sample makes it impossible to generalize findings to a wider population of men.

Wong et al. (2000) conducted research with 101 men diagnosed with prostate cancer from two tertiary care cancer clinics. The purpose of the study was to identify the information needs deemed important to men diagnosed with prostate cancer across the cancer trajectory. A majority of the participants (70%) who were married and well educated, sought detailed information at all illness stages that focused on their “disease, treatment, survival, self-care, and empowerment” (p.13). The men reported that receiving information about how to improve their
recovery, the physical side effects of treatment, and the long term effects of the disease and treatment was important (Wong et al.). Limitations of this study included homogeneity of the sample, as the men were from a metropolitan, university teaching hospital, and only spoke English. Therefore, issues that concern men from different cultural groups may not have been identified. In addition, a few patients in this study were too ill to participate and they may have had different information needs, thus volunteer bias may limit generalizability of the results. Finally, a ceiling effect was observed as there was little variation in answers between the various points during the illness trajectory, indicating that it would be best to “examine questions only about the patient’s current phase of illness” (Wong et al., p. 18).

Boberg et al. (2003) assessed the unmet information, support, and care delivery needs of 500 men with prostate cancer across the illness trajectory. Although the response rate was low (46%), respondents identified important information needs, including knowing what symptoms may signal a recurrence, what causes cancer, what lifestyle factors influence the course of cancer, how cancer impacts offsprings’ risk of cancer, and how to manage erectile dysfunction and treatment-related side effects. Limitations of this study include a low response rate, which may have been in part due to the lengthy 135-item needs survey. In addition, the large sample of men underrepresented minority groups. Finally, the timing of the survey may have been problematic as it was administered to men who were 12 to 24 months post-treatment. Because needs have been shown to change over time, it may have been difficult for the men to accurately assess their needs over the entire illness trajectory at one point in time. Conducting a longitudinal study of the men’s needs over time would have provided richer findings.

Davison et al. (2004) evaluated a patient-education program for men who had undergone an RP. Information pertaining to care of the Foley catheter was deemed to be the most important
information provided by nursing staff by 48% of men (n=48). However, only 10% of these men (n=5) indicated that they required more information about catheter-related problems. Men provided with a comprehensive discharge teaching booklet identified four information areas that could be expanded upon, including “expected post-surgical complications, trouble-shooting catheter problems, caring for the surgical incision, and incontinence following catheter removal and pelvic floor exercises” (p. 487). A limitation of this study was that the urology nurse conducting the telephone call did not document questions asked by the men during the follow-up telephone call intervention. Such knowledge would have helped identify information needs of these men within the first 48 hours post-discharge.

2.4.2. Support Needs

Seeking social support is a common coping strategy for patients with cancer (Butler et al., 2000; Manne, 2002). A positive correlation exists between an individual receiving social support and psychological adjustment (Oberst & James, 1985; Scura et al., 2004). However, research has identified that health care professionals frequently fail to meet the support needs of cancer patients (Harden et al., 2002; Moore & Estey, 1999). In addition, the support needs of men with prostate cancer are not well described in the literature (Steginga et al., 2001).

Harden et al. (2002) explored couples’ experiences with prostate cancer by conducting six focus groups at two cancer centers. The 22 men interviewed were between one month to two years post-diagnosis, post primary treatment, or in the metastatic phase of the disease. Men stated that they considered the opportunity to express concerns and receive support from a health care professional to be important in their recovery. Although the respondents had noted that health care workers involved in their treatment had acted “professionally,” they had also remained distant. Respondents also identified that having someone to speak with, to call, and to
ask specific questions during recovery would be beneficial (Harden et al.). Providing emotional encouragement was perceived as the most helpful way to support the men during hospitalization and in the month following discharge (Harden et al.). The majority of men in this study had advanced disease, which affects the content of emerging themes. Therefore, findings need to be interpreted with caution.

In Steginga et al.’s (2001) study, 206 men with prostate cancer completed the Supportive Care Needs Survey. A third of men in this study showed “moderate” to “high” unmet needs in three supportive care categories, including sexuality, psychological concerns, and health systems and information. In light of an RP’s impact on men’s urinary control, sexual function, and overall self-image, RP patients may need additional psychological support. Moreover, as men are often less inclined to use a support service as compared to women, health care professionals will need to develop innovative interventions that are acceptable to men and can provide support during the immediate post-RP period (Dunn, Steginga, Occhipinti, McCaffrey, & Collins, 1999).

2.5. Support Strategies and Their Effectiveness for Providing Information and Support

According to Griffiths and Leek (1995), nurses have long identified that the provision of information strategies to educate and support patients about the cancer process is a primary nursing responsibility. Harden et al. (2002) conducted focus groups with 22 men with prostate cancer and reported that participants indicated current strategies used to provide information and support was largely ineffective. Despite the expectation that health care professionals would provide information and support, health care professionals were perceived to be too busy to answer questions, such that participants often felt unprepared to recognize and manage treatment side effects after their discharge from hospital.
In a prospective randomized pilot study, Scura et al. (2004) conducted a telephone social support intervention combined with supplemental education with 17 men diagnosed with prostate cancer. Subjects in the experimental group (n=7) received telephone social support in conjunction with supplemental education via mail for one year following diagnosis for prostate cancer. The men in the control group (n=10) received the education component only. The authors reported that providing telephone social support and education were effective strategies to enhance men's adaptation to prostate cancer. Due to the small sample size in this study, no significant results were identified. Nevertheless, at the end of the pilot study, 14 of the men who participated in a structured interview expressed the opinion that the combination of receiving social support and education effectively increased their adaptation to prostate cancer.

A number of post-treatment strategies have been used with cancer populations to enhance physical and psychological recovery and promote satisfaction with the information provided to manage home self-care (Burt et al., 2005; Langwade, 2000; Moore & Estey, 1999). In the following section, strategies to promote understanding and enhance patients' ability to manage home self-care are presented.

2.5.1. Providing Written and Verbal Information

Provision of written information provides patients with access to the information when needed (Burt et al., 2005; Butow, Brindle, McConnell, Boakes, & Tattersall, 1998; Costello & Kiernan, 1993; Doak, Doak, & Meade, 1996; Edmonds, 1991; Griffiths & Leek, 1995). Providing verbal information has also been found to be effective strategy in reinforcing written information (Moore and Estey, 1999). Research identifying the benefits of providing written information in combination with verbal instruction is presented in this section.
According to Moore and Estey (1999) and Burt et al. (2005), providing written information alone does not effectively meet the information and support needs of men following RP. The authors suggest that additional written information following surgery (Moore & Estey) in conjunction with verbal information and support via telephone follow-up may be effective strategies in disseminating self-care information (Burt et al.; Moore & Estey). Both studies conducted by Moore and Estey and Burt and colleagues examined men’s experiences and post-operative concerns and needs following RP. Despite the men in both studies receiving comprehensive verbal and written information during the pre-operative period, the men felt ill prepared to manage post-operative self-care. Burt and colleagues found that the provision of written information alone during the post-operative period was not sufficient to answer necessary questions and foster reassurance. Although Burt and colleagues describe and document participants’ reported experiences, they do not identify the specific questions posed by the participants at different points in time, so that no correlation between patient needs and outcomes and the various stages of recovery can be made. Both of these studies concluded that if post-operative information is provided during the pre-operative period, then effective strategies need to be implemented to support the men as they manage the early weeks following RP.

Edmonds (1991) and Davison et al. (2004) have reported that providing men with a comprehensive information booklet prior to RP prepared them for admission to the hospital, offered valuable information about their hospitalization and what to expect following discharge. The authors suggest that providing the men with a comprehensive information booklet along with verbal information by nursing staff during the post-operative period was effective in helping the men understand what to expect during recovery and how to cope with and manage home self-care practices. Notwithstanding this finding, some men in Davison et al.’s pilot study were
observed to overuse community resources, such as visiting their general practitioners without physical problems to provide a discharge summary sheet during the first month. The authors recommended that additional reinforcement of information is required during the initial recovery phase.

2.5.2. Follow-up Telephone Calls

The use of follow-up telephone calls by health care professionals working with diverse clinical populations has been found to be an effective strategy to provide patient information (Burt et al., 2005; Lee et al., 1998; Robuck, 1999) and support (Costello & Kiernan, 1993; Davison et al., 2004; Ouellet et al., 2003), as well as being beneficial in promoting satisfaction with care (Cox & Wilson, 2003; Hallam, 1989; Lee et al.). Telephone calls are a convenient and cost-effective means of corresponding with patients as part of their follow-up care and are acknowledged to be both a feasible and beneficial modality for providing information and support, facilitating the link between hospital and home care (Bowman, Howden, Allen, Webster, & Thompson, 1994; Burt et al.; Cox & Wilson; Hallam; Lee et al; Ouellet et al.; Savage & Grap, 1999; Siegel, 1992). Telephone follow-ups provide health care professionals with a relatively easy method of conducting routine patient assessments and have been found to be a useful strategy for identifying whether or not discharge instructions provided to patients were effective (Bowman et al.; Costello & Kiernan; Garland, 1992; North, Meeusen, & Hollinsworth, 1991; Ponica, Ryan, & Carver, 2000; Turner, 1996; Wasson et al., 1992). Consequently, follow-up care by telephone may be an effective means of ensuring that post-discharge care is proceeding according to plan and that unforeseen issues have not arisen since the patient was discharged (Garland; Turner). Follow-up telephone calls may also help to improve adherence to self-care practices (Chelf et al., 2001) and may potentially enhance patient and health care
professional relationships. Telephone calls also offer convenience for the patient who does not have to travel great distances in order to receive professional advice, emotional support (Costello & Kiernan; Hughes et al., 2000; Johnson, 2000; Keeling & Dennison, 1995; Lee et al.; Mishel et al., 2002; Weissman & Jasovsky, 1998), and appropriate health care referral (Lee et al.; Nail, Greene, Jones, & Flannery, 1989), if warranted. In addition, the telephone provides an effective method of connecting with discharged patients as it promotes self-disclosure by offering anonymity (Rao, 1994).

There are several known disadvantages to follow-up telephone calls. Some individuals are uncomfortable with the impersonal nature of the telephone and prefer the human contact inherent in a face-to-face intervention (Cooper & Meyer, 2000). Telephone calls also limit a health care professional's ability to conduct a thorough physical assessment (Greitzer, Stapleton, Wright, & Wedgwood, 1976) and patients may not accurately report pertinent issues over the telephone, which further impedes accurate assessment (Greitzer et al.). In addition, health care professionals need to be cognizant that telephone follow-ups can be time-consuming and may necessitate referral to another health care resource. Health care professionals using telephone follow-ups must also be cognizant of using appropriate telephone decorum, including the use of appropriate tone, silences, and language, to support the effectiveness of the follow-up interventions (Rao, 1994).

The advantages of using follow-up telephone calls in today's health care environment, however, would appear to outweigh the disadvantages. Due to fiscal restraints and technological advances, the length of hospital stay for patients following surgery has been dramatically reduced (Costello & Kiernan, 1993; Henderson & Phillips, 1996; Jacobs, 2000; Keetch & Buback, 1998). Clearly, reduced hospital stays are a trend in today's Canadian health care system (Ouellet et al.,
2003). As such, shorter hospital stays limits the opportunity for discharge planning and patient teaching (Ouellet et al.). It is plausible that the use of follow-up telephone calls, as an intervention to provide information and support to patients that find themselves home with increased acuity and having to manage self-care practices may be beneficial. Without adequate information, surgical patients may find themselves ill prepared to manage issues or problems that may arise. As a result, patient outcomes may be adversely affected and recovery hindered if such problems are not identified and addressed (Ouellet et al.). In the following section, the use of follow-up telephone calls made to surgical patients following discharge from hospital is reviewed.

2.6. Use of Follow-up Telephone Calls

Follow-up telephone contact with health care professionals during the post-operative recovery period has the potential to enhance individual well being (Bostrom, Caldwell, McGuire, & Everson, 1996; Hagopian & Rubenstein, 1990; Keeling & Dennison, 1995; Ouellet et al., 2003; Wasson et al., 1992). In this section, eight studies on provider-initiated telephone follow-up with post-surgical patients are reviewed.

Four studies on provider-initiated telephone follow-up with post-surgical patients during the first week following discharge were found (Costello & Kiernan, 1993; Davison et al., 2004; Lee et al., 1998; Ouellet et al., 2003). Two of these studies evaluated the use of this intervention with RP patients (Costello & Kiernan; Davison et al). Lee et al. studied the effect of a nurse-initiated telephone call at 24 to 48 hours post-discharge on medical-surgical patients’ perception of their recuperation progress, post-discharge educational needs, and the need for referral to additional health care resources. Using a cross-sectional descriptive study design, a convenience sample of 206 patients from two medical-surgical units received a follow-up telephone call
within 24 to 48 hours after discharge from a registered nurse, who provided health-related medical information, advice, and referral. The authors found that 92% of the patients reported that they received adequate information prior to discharge and were prepared to manage self-care. However, 40% of these patients required specific directions for providing self-care, such as how and when to take prescribed medications, during the follow-up call. A majority of patients (77%) also required reinforcement of discharge instructions during the call, further indicating that pre-discharge instructions were not entirely effective. In addition, 20% of participants required referral to additional health care resources.

The follow-up telephone call at 24 to 48 hours post-discharge in Lee et al.'s (1998) study proceeded the period in which some of the difficulties related to surgery tend to occur. Certain physiological concerns and side effects, such as wound healing, activity level, fatigue, and changed bowel habits, may not have surfaced at the time of the nurse’s call. Another limitation of the study design was the data collection instrument called the “Discharge Call Service” tool, which consisted of 10 closed-ended questions about self-care, based on pre-discharge instructions. The tool did not allow the researchers to address specific post-operative concerns related to the surgery itself and the sensitivity of the tool to detect all post-operative concerns was questionable. Furthermore, the authors collected no demographic data; therefore, the impact of patient characteristics on study findings was not assessed. In addition, the nursing staff conducted the intervention, which may have biased or influenced patient’s responses. Further, because the pilot study used a cross-sectional design, trends over time could not be examined. Finally, the pilot study did not have an experimental group; therefore, it is impossible to say with certainty that the follow-up telephone calls made a difference in the patient’s recovery.
A pilot study conducted by Ouellet et al. (2003) with 53 orthopedic surgical patients explored the effectiveness of providing a follow-up telephone call between 24 and 72 hours post-discharge. Although the primary focus of this study was to determine the appropriateness of the study's protocol and data collection tools, the follow-up telephone call elicited valuable discharge information as some of the participants (n=11) expressed ambivalence about their preparedness for discharge, especially in terms of the acceptable level of physical activity. Moreover, a number of participants perceived that their recovery had been negatively impacted by pain (n=16), bowel elimination problems (n=2), changes in eating habits (n=3), swelling (n=12), difficulties with activities of daily living (n=31), and altered emotional state(s) (n=3).

Ouellet et al. (2003) identified a number of limitations within their pilot study. First, during the follow-up telephone call at 24 to 72 hours post-discharge, only general questions were asked, such as: “How are you doing? Any problems?” (p. 91); such general questions failed to evoke rich, descriptive information about how patients were managing post-discharge. Another limitation was the timing of the study instrument. The “Post Discharge Recovery” tool was created specifically for this pilot study and was implemented at four weeks post-discharge. However, this study suggests that at four weeks, many participants had difficulty recollecting and describing the problems they had encountered during the immediate post-operative period (Ouellet et al.). Finally, although Ouellet et al.’s study is identified as a feasibility study, the authors failed to elicit information from participants about the usefulness of the follow-up telephone call intervention, which might have provided valuable information about the intervention itself.

The effect of a nurse-initiated telephone call to men following RP at two days post-discharge (Davison et al., 2004) and at three to five days post-discharge (Costello & Kiernan,
1993) identified men's post-discharge concerns, their information and support needs, and use of additional health care resources. Costello and Kiernan's quantitative, descriptive study with 16 RP patients tested a post-discharge telephone call assessment tool. Their findings indicated that patients were "pleased to hear" from a nurse, and were able to discuss their ability to manage self-care practices, such as adaptation to a Foley catheter, bowel status, nutritional needs, wound care, and pain management. The authors concluded that patients' responses to the questions posed during the follow-up telephone call showed that practice standards needed to be changed. For instance, prior to the use of follow-up telephone calls, post-operative teaching was only provided verbally. As a result of the patients' responses, a formal written teaching tool was developed to reinforce verbal instruction.

Despite Costello and Kiernan (1993) concluding that a post-discharge telephone call was an effective strategy to provide patient support and offer an opportunity to assess RP patients' recovery, several limitations were noted. Foremost, the timing of the telephone contact preceded the period when major side effects related to the surgical treatment, such as urinary incontinence, tend to occur. This study was also limited by its small sample size (n=16), which makes finding significant results difficult. No data measuring the participants' levels of satisfaction or the perceived usefulness of the follow-up telephone call was collected. Therefore, it is difficult to assert that the follow-up telephone call was in fact useful, or that the patients were satisfied with the follow-up intervention.

Davison et al. (2004) conducted an evaluation of a post-RP discharge program with 100 men. A 48-hour discharge telephone call by a urology nurse was a component of the discharge program provided to these men. Although the program evaluation found that the telephone calls were perceived as indicating that "someone cared," the specific information needs expressed by
the men were not documented. Such documentation could have provided valuable information about common issues or concerns at 48 hours post-discharge, the men’s ability to manage home self-care, and their particular information and support needs. The program evaluation also suggested that conducting a follow-up telephone call at a point later than 48 hours may be beneficial, given that some of the men reported that most complications occurred after the 48-hour follow-up telephone call. The need for additional follow-up by a health care professional was also highlighted by the fact that 25% of the 100 men in the study required additional medical assistance and made one to four emergency room visits during the first month following discharge. Therefore, it may be beneficial to implement a telephone call during the second week following discharge, when the Foley catheter and incision staples have been removed.

Three studies were found on provider-initiated telephone follow-up with post-surgical patients after the first week following discharge (Johnson, 2000; Mishel et al., 2002; Roebuck, 1999). Only one of these studies evaluated this intervention with RP patients (Mishel et al.). Roebuck studied the effects of telephone calls with elective cardiac surgery patients at discharge and at five weeks on patients’ levels of anxiety and depression. Study participants (n=78) were randomly assigned to either the experimental group that received standard discharge advice and information plus two additional follow-up telephone calls from a nurse, or to a control group that received only standard discharge advice and information from ward staff. Ninety-seven percent of participants perceived the first follow-up telephone call to be beneficial. The greatest area of concern reported by patients was pain and pain control (44%). All patients perceived the second follow-up call to be beneficial. Areas of concern reported at five weeks were pain and pain control (69%) and mobility (39%). A higher percentage of patients reported pain at five weeks than at discharge; similarly, concerns about mobility tended to arise at the five week follow-up
rather than at discharge. This suggests that a follow-up telephone call at a later point following discharge may be beneficial in detecting some surgical problems experienced during the recovery stage.

Although Roebuck's (1999) study demonstrated that follow-up telephone calls may be beneficial in showing patients that they have not been forgotten, no significant differences between the two study groups were seen in terms of anxiety or depression levels, and consequently, the study's hypothesis that follow-up telephone calls would reduce anxiety and depression was not supported. The lack of significant findings makes it impossible to make definite conclusions about the effectiveness of follow-up telephone calls on patient's recovery in terms of anxiety or depression levels. Nevertheless, the fact that all participants reported that they found the later follow-up calls beneficial suggests there may be a need for additional support during the early post-operative stage. Another explanation may be that participants felt socially obligated to report that the follow-up telephone calls were beneficial, when in fact they were not. It may be difficult for patients to evaluate the service objectively as the pleasure of receiving a telephone call may obscure its usefulness. Roebuck concluded that the only way to illuminate the contradiction between the reported benefits of the follow-up telephone calls and low depression scores would be to implement a qualitative study with a similar cohort of people.

Johnson (2000) conducted a patient evaluation of a nurse-initiated telephone call at one month post-discharge with 100 cardiac surgery patients. Patients who had received the follow-up telephone call were sent a mailed questionnaire two months later. When asked whether they would have liked the follow-up telephone call sooner, 48% responded affirmatively, with 44% indicating that they would have liked to receive the call within the second week after discharge. Thirty-five per cent of participants indicated that they would have liked more than one call, with
83% of these patients reporting that receiving a call before one month had elapsed would have been beneficial. The timing of the follow-up telephone call may have been problematic because it occurred after a period when some of the difficulties experienced by patients might have surfaced. Therefore, the participants might not have benefited from the follow-up telephone call intervention. Johnson identified other limitations of the study and found that questions on the patient evaluation form were somewhat ambiguous and therefore made data analysis difficult. It might have also been useful to seek patient opinion prior to starting the follow-up telephone service. Patients who were already discharged and recovered from their surgery and those not yet discharged could have been asked if a follow-up telephone call would be/or would have been helpful and at what time (Johnson). This would have established that the service met the needs of the patients. In addition, this would eliminate any bias that may occur when opinions are sought after a service is already in place (Johnson). Therefore, a pilot study would have helped ensure that the questionnaire was appropriate and effective as well as identify the most appropriate time to conduct the follow-up telephone call.

Mishel et al. (2002) studied the efficacy of an individualized, uncertainty management intervention delivered by telephone to 239 men following treatment for localized prostate cancer. The authors provided the intervention via telephone, either directly to the patient or through a support person. The intervention was directed at managing uncertainty and enhancing symptom control. Experienced nurses delivered the intervention through weekly telephone calls over an eight week time period. Men were randomly assigned to one of three different groups: group 1 received the intervention directly, group 2 received it indirectly through a family member, and group 3, the control group, received standard care. The patients and support people in the experimental groups received a weekly telephone call, which consisted of an assessment of
patient concerns related to prostate cancer, uncertainty, and complications. The nurse followed a standard list of potential treatment-related problems and side effects, but also encouraged patients to express specific concerns.

The authors found that the two experimental groups showed significant improvement at the four-month follow-up with regards to two uncertainty management methods, cognitive reframing and problem solving. Both experimental groups were also found to have improved significantly with regards to incontinence control at the four-month baseline, as men in these groups received weekly training on how to perform Kegel exercises. During the first four months, the men in the treatment-supplemented group (group 2) reported the greatest reduction in the number of symptoms. From four to seven months, the men in the direct-treatment group (group 1) showed the greatest reduction in symptoms, suggesting that it may take men longer to implement the skills taught during the intervention to manage symptoms when the intervention is not also taught to a support person. It is also plausible that the men without a support person involved in the intervention may require more time to learn and practice the strategies (Mishel et al., 2002). Although the telephone intervention was successful in reducing the number of treatment side effects, it did not appear to affect the intensity of symptoms. Several limitations of this study were identified. First, few intervention effects were noted to hold over time, at seven months post-baseline the effects of cognitive reframing and problem solving started to decline significantly, which may indicate that the intervention needed to be implemented longer then the eight-week time frame (Mishel et al.). In addition, the investigators matched the participants with the intervention nurse according to demographics, such as gender and race, which may impede the generalization of findings to a larger population.
Only one study was found on provider-initiated telephone follow-up with post-surgical patients at multiple points in time following discharge (Burt et al., 2005). This qualitative, descriptive research inquiry was conducted with 17 men following an RP. The aim of the study was to explore men’s post-RP experiences and determine whether or not the pre-operative teaching provided had adequately prepared them for the initial post-operative recovery period. The semi-structured follow-up telephone calls were implemented at days two, seven, 21, and at three months, with all 17 participants. A single, in-depth, face-to-face interview was conducted at 12 months post-operation with a group of five participants who were able to reflect on their experience and provide particularly rich descriptions. The follow-up telephone calls lasted approximately 30 to 45 minutes and consisted of an unstructured period within which the participant was encouraged to articulate his lived experiences since his surgery, and a period reserved for questions about the post-discharge recovery period.

The men in Burt et al.'s (2005) study described that although they had previously received both verbal and written information about their expected course of recovery, they nevertheless experienced considerable concern about not being adequately prepared to manage urinary incontinence and erectile dysfunction. Although the use of the telephone in this study was used as a data collection tool it was found to also be an effective strategy to facilitate support. The men considered the follow-up telephone calls to be helpful in promoting adjustment to the recovery phase, which aided in reducing anxiety caused by treatment-related side effects and unanswered questions.

Several limitations of this study were identified. First, this study only explored the experiences of the men and did not provide any form of intervention and support in the early discharge period. In addition, the use of follow-up telephone calls, as a means of data collection
may have impeded the collection of rich data. Face-to-face interviews that allow for observations of facial expressions and non-verbal communication add to the richness of data, especially when discussing sensitive subject matter such as urinary incontinence and sexuality issues. Another limitation was that the one interviewer was present at each of the interviews and this may have influenced how the impact of the telephone call was described by participants (Burt et al., 2005). Finally, the small sample size was a noted limitation of the study design.

2.7. Summary

Three areas are summarized from the literature review. First, due to advances in screening for localized prostate cancer, the number of diagnosed cases of prostate cancer is increasing. Radical prostatectomy, the surgical treatment for localized prostate cancer is associated with adverse side effects, which include urinary incontinence and erectile dysfunction. Researchers have achieved a consensus that the period following surgery for cancer can be extremely distressing for patients, which may continue for months following discharge from hospital. For men following RP, this period may be particularly distressing as they learn to cope with urinary incontinence and erectile dysfunction. Second, due to decreased length of hospital stay following RP, men are responsible for managing increased self-care practices at home that includes caring for a urinary catheter, managing leakage from around the catheter, painful bladder spasms, and managing urinary incontinence once the catheter has been removed. Research identifying the information and support needs of men following an RP at different points in time during the immediate post-discharge period is required. There is growing awareness in the literature that more data are necessary to develop strategies and test their effectiveness for providing information and support to men following an RP during the immediate post-operative period. Third, the use of telephone follow-up is supported in the
literature because of its potential to offer valuable but cost-effective support during the immediate post-operative period. To date, research has revealed that men following an RP perceive such interventions as indicating "someone cares" and that they "are pleased to hear from a nurse". However, research examining the efficacy of timing of telephone follow-up during the immediate post-operative period to men following a RP is needed.
CHAPTER THREE
RESEARCH METHODS

3.1. Introduction

The research methods used in this pilot study are outlined in the following section. Specifically, the research design, sampling procedures, description of the follow-up telephone call intervention, data collection procedures, instrumentation, data analysis procedures, ethical considerations, and study limitations are described.

3.2. Research Design

A pretest-posttest 3-group experimental design was chosen as the research method for the larger study, as this is an appropriate research design for measuring the effectiveness of the follow-up telephone call intervention (see Figure 1). True experimental designs are powerful research methods that allow the testing of cause and effect relationships between study variables (Polit & Hungler, 1999). Because I wanted to examine the feasibility of the design I used a similar design. The independent variables of interest include the timing and number of follow-up telephone call(s). The dependent variables of interest include the men's ability to manage self-care, their information and support needs, their utilization of health care resources, and their satisfaction with the care provided. The pretest-posttest design is ideal for comparing groups and measuring change resulting from an experimental treatment, such as the follow-up telephone call intervention (Dimitrov & Rumrill, 2003). This design allows the cause and effect to be measured and the impact of the follow-up telephone call intervention to be isolated and measured. In a full scale study, this design would allow the researcher to test if a causal relationship exists between the timing and frequency of follow-up telephone calls made to men following a radical
prostatectomy (RP) and men’s ability to manage self-care, utilization of health care resources, and satisfaction with care.

The men in this pilot study were randomly assigned to 1 of 3 groups: Group 1, the control group, received a telephone call at 48 hours using the standard form; Group 2, the first experimental group, received a telephone call at 48 hours using an expanded form; and Group 3, the second experimental group, received two telephone calls, at 48 hours and 10 days, using the expanded form. Randomization was accomplished by placing 15 cards in a container with 5 cards bearing the number 1, 5 cards bearing the number 2, and 5 cards bearing the number 3. The card drawn reflected the group allocation for each participant.
Figure 1. Pretest-Posttest Research Design

R E1 01 X1 02  04
R E2 01 X1 02 X2 03  04
R C 01 X3 02  04

C - Control Group (call at 48 hours using standard form)
E1 - Experimental Group 1 (call at 48 hours using expanded form)
E2 - Experimental Group 2 (call at 48 hours and 10 days using expanded form)
R - Group assignment is randomized
X1 - Telephone call at 48 hours using expanded form
X2 - Telephone call at 10 days using expanded form
X3 - Telephone call at 48 hours using standard form
01 - Baseline data collection at 3 days post-operation
02 - Data collection during phone call(s) at 48 hours post-discharge
03 - Data collection during phone call at 10 days post-discharge
04 - Data collection at 30 days post-discharge.
This study was considered a pilot because it helped to determine the feasibility of conducting a large-scale study in the future. Feasibility was explored by examining the ease of subject recruitment, examining the barriers and facilitators of sampling procedures, and the appropriateness of the study instruments.

3.3. Description of the Follow-up Telephone Call Intervention

The follow-up telephone calls were used to assess how the men were managing at home, to identify their information and support needs, to identify how knowledgeable they were about the skills required to perform self-care practices, and if any additional information and/or support was needed. The follow-up telephone call(s) also provided the men with an opportunity to express concerns and ask questions.

The purpose of the follow-up telephone call at 48 hours post-discharge using the standard form was to assess how the men were managing since discharge and if they required assistance (Appendix 5). The standard form included two open-ended questions, which asked the men how they had been coping since their discharge and if they required assistance. No specific questions about how the men were managing their self-care practices or the need for additional information about self-care practices were addressed by the standard form.

The expanded follow-up telephone call at 48 hours post-discharge used an expanded form (Appendix 6) that specifically identified how the men were managing self-care practices and if additional information was needed. Using the expanded form, the follow-up telephone call was used to assess the men’s ability to care for the surgical incision and Foley catheter, toleration of activity, level of fatigue and ability to sleep, and level of appetite and fluid intake. The expanded telephone call at 48 hours was also used to identify if the men were having regular bowel functioning, whether they were experiencing any pain, and, if so, how they were managing the
pain. In addition, the expanded form assessed whether additional information for each self-care practice was needed.

The follow-up telephone call conducted at 10 days post-discharge (Appendix 7) used an expanded form to assess how the men were managing self-care practices and if additional information was needed. At this time, the men’s Foley catheter had been removed. Using the expanded form, this call was used to assess the men’s ability to care for their surgical incision, and to find out whether they were experiencing urinary incontinence and practicing Kegel exercises. The call was also used to assess whether or not the men were able to tolerate activity, their level of fatigue, their ability to sleep, their level of appetite and fluid intake, whether they were having regular bowel functioning, whether they were experiencing any pain, and, if so, how they were managing the pain. The expanded form also identified whether any additional information was needed.

All actions taken by the researcher during each follow-up telephone call were documented on a standardized form, including reinforcement of discharge teaching, provision of additional care or assistance, referral to another health care professional or service, or forwarding of a request for additional written information from the Prostate Resource Centre at the hospital. If the men were instructed to call a physician for medical assistance, the reason for the referral as well as the type of physician referral, were documented.

3.4. Sampling Procedures

The setting for this study was the urology unit of Vancouver General Hospital, a tertiary care teaching hospital in Vancouver, British Columbia, a large Western metropolitan Canadian city. The sample was selected through non-probability, consecutive sampling methods. Sampling criteria included being an adult male in-patient who had undergone an RP for localized
prostate cancer with one of two surgeons, were three days post-operative, conversant in English, and had telephone access at home. The sample was limited to men who were cared for by the two surgeons because these physicians' protocol involved removal of the Foley catheter one week following discharge. Men were excluded if they had post-operative complications that impacted recovery or extended the length of hospitalization and/or a pre-existing mental disorder that had been identified by medical or nursing staff.

The sample consisted of 15 men, with five men in each experimental group. The sample size was small due to practical constraints, such as time and the expense of conducting a larger-scale study. According to power analysis, a full-scale study would require a sample size of 53 in each of the 3 groups to test this intervention with sufficient power, i.e. power of .80, alpha of .05, and a population Eta-squared of .06, which is a medium effect size (Cohen, 1992).

3.5. Recruitment and Data Collection Procedures

On the first post-operative day, the Patient Services Coordinator on the urology unit presented the study to prospective participants who met the eligibility criteria, using both a verbal and written invitation to participate (Appendix 1). The Patient Services Coordinator then informed the researcher about any men who were interested. These men then met with the researcher on post-operative day three, at which time the researcher provided a full explanation of the study and obtained consent if the man was agreeable (Appendix 2).

On obtaining informed consent, the men were asked to complete a short Socio-Demographic Questionnaire (Appendix 3). The researcher also collected baseline data using the Satisfaction with Discharge Information and Care Scale (SDICS) (Appendix 4). The Socio-Demographic Questionnaire and SDICS took approximately 10 minutes to complete. A quiet
and confidential environment was maintained by pulling the curtains around the bed if the men were not in a private room.

The researcher conducted the follow-up telephone calls at 48 hours post-discharge and at 10 days post-discharge for patients assigned to Group 3 (Appendices 5, 6, and 7). The calls were arranged at a time that was convenient for each of the men and the researcher. Each follow-up telephone call took approximately 30 minutes to complete and the length of each call was documented. Three attempts were made to contact each of the men over a two-day period, and if contact was unsuccessful after three attempts, those men were excluded from the study.

At 30 days post-discharge, a research assistant blinded to group assignment contacted each of the men by telephone and administered a series of instruments (see Table 1). The 30-Day Post-Discharge Interview (Appendix 8) consisted of the Symptom Distress Scale (SDS), the Expanded Prostate Cancer Index Composite Scale (EPIC), the Utilization of Health Care Resources Tool, and the Satisfaction with Post-Discharge Information and Care Scale (SPDICS). This interview took approximately 30 minutes.

As one of the main goals of this pilot study was to test and refine a research protocol designed to explore the impact of a discharge follow-up intervention on men following RP, data pertaining to the feasibility of subject recruitment, sampling procedures, follow-up telephone call intervention, and data collection instruments were kept by the researcher in the form of field notes. The field notes were documented throughout the implementation phase of the pilot study and allowed the researcher to keep a detailed description of unstructured observations, which identified the barriers and facilitators of subject recruitment, sampling procedures, follow-up telephone intervention, and data collection instruments.
3.6. Instrumentation

Each of the instruments will be described in terms of its focus and the evidence related to validity and reliability.
<table>
<thead>
<tr>
<th>Table 1. Instruments Used to Collect Data</th>
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<tr>
<td>Post-Operative Day 3</td>
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<tr>
<td>Satisfaction with Discharge Information and Care Scale (SDICS)</td>
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3.6.1. Socio-Demographic Questionnaire

A socio-demographic questionnaire was used to identify pertinent medical and surgical history, age, first language spoken, ethnicity, marital status, place of residence, level of education, employment status, total household income, and resources used to obtain information about the radical prostatectomy procedure (Appendix 3).

3.6.2. Satisfaction with Discharge Information and Care Scale

The Satisfaction with Discharge Information and Care Scale (SDICS) is a 5-item Likert-type scale that assesses patient satisfaction with the information provided prior to discharge, awareness of the signs and symptoms that require medical attention, whether all information needed for recovery was provided, whether the patient felt ready to manage self-care at home, and satisfaction with the overall care received. These items were adopted from a survey questionnaire developed by Davison et al. (2004). Responses range from 1= “strongly disagree” to 5= “strongly agree.” Responses for satisfaction with the overall care received range from 1= “poor” to 5= “excellent.” Higher scores indicate greater satisfaction with information and care received. The total score is calculated by summing the items (Appendix 4).

3.6.3. Ability to Manage Self-Care

The ability to manage self-care was assessed with the Management of Self-Care and Information/Support Needs Survey, Symptom Distress Scale (SDS), and the Expanded Prostate Cancer Index Composite (EPIC). Self-care requires that the individual possess certain kinds of knowledge, have a wide variety of skills, and be able to access health care resources (Orem et al., 1995). Effective self-care practices contribute “to human structural integrity, human functioning, and human development” (Orem et al., p.103). If the men involved in this study experienced symptom distress associated with treatment, it was assumed that they might also be having
difficulty managing self-care practices. Similarly, effective self-care management would be reflected in the ability to manage pain, care for the surgical incision, resume a normal diet, maintain adequate fluid intake, care for the Foley catheter, resume normal bowel functioning, manage urinary incontinence, and engage in bladder retraining. The following scales were therefore used to reflect these aspects of effective self-care management.

3.6.4. Management of Self-Care and Information and Support Needs Survey

During the follow-up telephone calls, data was obtained to assess the men’s ability to manage self-care and identify their particular information and support needs. The standard form used at the 48-hour follow-up telephone call was used to assess how the men had been coping since discharge and if they needed assistance (Appendix 5). This standard form was originally used by Davison et al. (2004) and was implemented at 48 hours post-discharge with men following a RP. Nurses from the urology unit conducted all of the follow-up telephone calls and assessed how the men were managing since discharge and if they needed further assistance. The nurse who made the follow-up telephone call may or may not have provided direct care to the men while they were in the hospital. The validity and reliability of this instrument was not identified by Davison et al., nor did the nurses conducting the follow-up telephone calls document any questions posed by the men.

The expanded form used at 48 hours post-discharge and 10 days post-discharge (Appendix 6 and 7) also assessed how the men had been coping since their discharge, but was expanded to identify how they were managing specific self-care practices, such as care of the surgical incision, care of the Foley catheter, management of bladder spasms, and toleration of activity, by using a Likert-type scale. Responses ranged from 1= “not well” to 4= “very well.” Higher scores indicated greater ability to manage self-care and lower scores indicate poor self-
care management. Responses for level of appetite and fluid intake ranged from 1= "poor" to 5= "excellent." A higher score indicated a satisfactory level of appetite and fluid intake, whereas a lower score indicated an unsatisfactory level of appetite and fluid intake. Questions pertaining to regular bowel movements and pain were formulated to elicit a simple "yes" or "no." If participants reported that they were experiencing pain, they were asked to elaborate on how they were attempting to control their pain.

The expanded form used at 10 days post-discharge included questions about specific self-care practices, such as when the Foley catheter was removed. This form also used a Likert-type scale to identify if the men were experiencing urine leakage and practicing Kegel exercises. Responses ranged from 1= "never" to 3= "frequently." A higher score indicated greater control of urine leakage and higher rates of practicing Kegel exercises. Although the telephone calls were based on a semi-structured script, the researcher also allowed conversations to develop to some extent, and encouraged participants to share information as spontaneously and fully as possible. All the questions posed by the men and the researcher’s responses were documented, either at the time of the follow-up telephone call or directly after the call was completed.

3.6.5. Symptom Distress Scale

McCorkle and Young’s (1978) Symptom Distress Scale (SDS) was used to measure symptom distress (Appendices 6, 7, and 8). The SDS is a 13-item scale that measures the physical and emotional distress experienced by cancer patients as a result of their disease and treatment. For this pilot study, a modified version was used that includes a 6-item scale that measures appetite, insomnia, pain (2-items), bowel problems, and fatigue. The instrument was modified to reflect outcome measures relevant to this pilot study: items relevant to chemotherapy were omitted. The instrument measures the intensity of the distress on a 5-point Likert-type
scale. Responses range from 1= “least distress” to 5= “most distress.” Higher scores indicated greater symptom distress and lower scores indicated lower distress. The total score is calculated by summing the items.

The validity of the SDS has been well established with cancer patients, and has already been used in one study pertaining to men with prostate cancer (Thompson et al., 2001). The reliability of the SDS has been found to range from .78 to .89 (Mast, Lindley, Vasa, Sawyer, & Winer, 1998; McCorkle, 1987; McCorkle & Young, 1978).

### 3.6.6. Expanded Prostate Cancer Index Composite

The Expanded Prostate Cancer Index Composite (EPIC) assesses the disease-specific aspects of prostate cancer and related therapies and is comprised of four specific health-related quality of life domains (HRQOL) (Urinary, Bowel, Sexual, and Hormonal). The domain-specific scale implemented in this pilot study is the Urinary Scale that assesses men’s level of urinary functioning (see Appendix 8). The EPIC Urinary Scale measures the urinary habits of men following treatment for prostate cancer using 23 items, which are grouped according to urinary function, bother of urinary function, level of incontinence and presence of urinary irritation and obstruction subscales. Some items on the Urinary Scale may be in more than one subscale. Table 2 describes the four subscales in detail.
Table 2. EPIC Subscale

<table>
<thead>
<tr>
<th>Urinary Habit</th>
<th>Number of Items</th>
<th>Items Assesses</th>
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</table>
| Urinary Function                           | 5-Items         | • Incontinence of urine.  
• Incontinence of blood.  
• Presence of pain or burning with urination.  
• Level of urinary control.  
• Number of pads used per day. |
| Bother of Incontinence                     | 7-Items         | • Significance of incontinence.  
• Pain or burning with urination.  
• Bleeding with urination.  
• Weak urine stream or incomplete emptying.  
• Bother to wake up to urinate.  
• Frequently of urinating during the day.  
• Overall urinary function. |
| Level of Incontinence                      | 4-Items         | • Frequency of urine leaks.  
• Level of urinary control.  
• Number of pads used per day.  
• How big a problem has leaking urine been? |
| Presence of Urinary Irritation and Obstruction | 7-Items        | • How often do you urinate blood?  
• How often do you experience pain or burning with urination?  
• How big a problem has pain or burning on urination been?  
• How big a problem has bleeding on urination.  
• How big a problem is having a weak stream or incomplete emptying.  
• How big a problem is waking up to urinate?  
• Frequency of urinating during the day. |

The EPIC has been validated in men with localized prostate cancer who have undergone surgery, radiation, and brachytherapy. The internal reliability for the urinary subscale of function is 0.69, for the bother of incontinence subscale is 0.85, for incontinence is 0.89, and for presence of irritation or obstruction is 0.81 (Litwin et al., 1998). Researchers at the University of Michigan
and UCLA first developed the EPIC to measure HRQOL among men with prostate cancer (Wei, Dunn, Litwin, Sandler, & Sanda, 2000). The instrument is a revision of the UCLA Prostate Cancer Index, which was modified to increase sensitivity to therapy effects by increasing the number of prostate-targeted items (Litwin et al.). Response options for each EPIC item comprise a Likert-type scale, and are transformed linearly to a 0 to 100 scale. Possible EPIC scores can range between 0 and 500 for urinary function, between 0 and 700 for bother, between 0 and 400 for urinary incontinence, and between 0 and 700 for irritation and obstructive. Higher scores represent better HRQOL and lower scores indicate a lower HRQOL. The total score is calculated by summing each of the urinary subscales.

3.6.7. Utilization of Health Care Resources Tool

The Utilization of Health Care Resources tool was developed by Davison et al. (2004) and was first used to identify the health care resources used by patients during the first month following an RP. The tool was also used to assess the type of health care resource used, the frequency of use, and the reason for use (see Appendix 8).

3.6.8. Satisfaction with Post-Discharge Information and Care Scale

The Satisfaction with Post-Discharge Information and Care Scale (SPDICS) assesses satisfaction with post-discharge information and care (see Appendix 8). The SPDICS is similar to The Satisfaction with Discharge Information and Care Scale (SDICS). It is a 5-item Likert-type scale, which measures the usefulness of the follow-up telephone call(s), satisfaction with information provided during the follow-up telephone call(s), awareness of the signs and symptoms that indicate the need to seek medical post-discharge attention, whether all the information provided during the follow-up telephone call(s) was needed for recovery, and level of satisfaction with overall care received. The SDICS pertains to the information provided to the
men at the time of discharge, whereas the SPDICS pertains to the information provided to the men during the follow-up telephone call intervention. The SPDICS included the same questions as the SDICS, except it did not include the question “whether the patient felt ready to manage self-care at home”.

Two additional open-ended questions identified what was considered to be most useful, and least helpful about the follow-up telephone call(s). Responses regarding the usefulness of the follow-up telephone call(s) range from 1 = “not at all useful” to 4 = “very useful,” with higher scores indicating greater perceived usefulness. Responses regarding satisfaction with the information provided during the follow-up telephone call(s) range from 1 = “strongly disagree” to 5 = “strongly agree.” Responses regarding satisfaction with the overall care received range from 1 = “poor” to 5 = “excellent”, with higher scores indicating greater satisfaction with information and care received, and lower scores indicated lower satisfaction with information and care received. The total score is calculated by summing the items.

3.6.9. Field Notes

Detailed field notes were kept throughout the pilot study by the researcher in order to keep an accurate account of the feasibility issues that occurred. Common themes were identified and categories were grouped then summarized and described. The field notes described aspects of sampling procedures, subject recruitment, follow-up telephone intervention, and data collection instruments. Specifically, in the field notes pertaining to the first research question regarding accessing the population of interest (i.e. men undergoing RP), the issues that were documented in the field notes included: did the nurses on the urology unit have any concerns or issues in aiding with the recruitment of the men, did the urologists have any concerns or issues in aiding with the recruitment of the men, were there any issues with recruitment occurring on post-
operative day one, and were there any privacy issues at the time of recruitment. The field notes that were kept pertaining to the second research question regarding sampling procedures included: what were the problems with the sample size, were there issues with the inclusion criteria, the length of time needed to recruit a sample of men, the number of men that were not interested in participating in the study, the reasons why the men did not want to participate or decided to leave the study.

Feasibility issues pertaining to aspects of the telephone follow-up intervention were documented throughout the intervention phase by the researcher and included: timing of the follow-up telephone intervention, length of the follow-up telephone calls, timing of the follow-up telephone calls, number of telephone calls needed to reach the men, clarity of the questions on the follow-up telephone call form(s), men’s concerns about the questions posed during the follow-up telephone call(s), and costs associated with the follow-up telephone call intervention. In addition, field notes were also kept by the researcher about the data collection procedures, including: the length of time it took to complete the instruments, the readability and ease of understanding of the instruments, and the timing of the instruments.

3.7. Data Analysis Procedures

This pilot study was undertaken to determine the feasibility of conducting a full-scale study. Feasibility was assessed in terms of the appropriateness of sampling procedures, subject recruitment, follow-up telephone intervention, and data collection procedures, including instrumentation. Specifically, the appropriateness of the study instruments was measured according to whether or not the tools used allowed the researcher to collect sensitive data. The reliability of the selected tools was preliminary analyzed via Cronbach’s alpha. All quantitative data was inputted and analyzed using SPSS Version 11.
The research questions provided direction for the final stage of analysis of the pilot study. To answer the first research question, regarding the barriers and facilitators to accessing a population of men following a RP, factors that aided or impeded sample recruitment were summarized and described from the field notes. Similarly, to answer the second research question, identifying the barriers and facilitators for the sampling procedures used to recruit the study sample; the factors that helped or hindered sampling procedures were summarized and described from the field notes. The field notes provided rich data that was necessary to describe what aspects went well and what would need to be changed with sampling procedures, sample recruitment, and data collection in order to implement a full-scale study in the future. The field notes were analyzed by identifying common themes that emerged during the implementation phase. Subsequently, the common themes pertaining to accessing the population, recruitment of the sample, and data collection were then grouped into categories, then summarized and described.

To answer the third research question, regarding the extent to which the selected instruments were appropriate and sensitive measures of the outcome variables of interest, the collected data was analyzed using descriptive statistics and non-parametric tests. To determine if the selected instruments were sensitive, the ceiling and floor effects of each instrument were analyzed by comparing the responses on each item of each instrument. The dispersion of responses across each item was descriptively considered in order to identify ceiling and floor effects. The amount of time that it took the men to complete the instruments was described. In addition, if the men verbalize that they had difficulty understanding components of the selected instruments this was documented in the field notes, summarized, and described.
Data pertaining to the utilization of health care resources was analyzed using descriptive statistics, focusing specifically on the number of men utilizing additional resources, and the frequency of use. Qualitative data regarding the reported reason for the use of each health care resource was also summarized.

Items from the pre-test Satisfaction with Discharge Information and Care Scale and from the Satisfaction with Post-Discharge Information and Care Scale were summed and the groups compared. To detect differences among groups, non-parametric tests were used, specifically the Kruskal-Wallis Test and the Wilcoxon Signed Ranks Test. In addition, data was compared before and after the intervention to determine if any trends existed. Qualitative data pertaining to what was found to be most useful and/or least helpful about the follow-up telephone calls were summarized and described.

The final research question, regarding the specific information and support needs of men recovering from an RP at 48 hours post-discharge and 10 days post-discharge was compiled and summarized at the time of the follow-up telephone call, using either the standard or expanded form. The sample (n=15) was described and the groups compared based on demographic data. Data pertaining to socio-demographics was analyzed using frequencies. Trends were determined by conducting non-parametric tests, specifically the Kruskal-Wallis Test, Wilcoxon Signed Ranks Test, and Friedman Test.

3.8. Ethical Considerations

Although it was not anticipated that participation in this pilot study would cause any harm to participants, the men involved did share personal, medical, and confidential information with the researcher and the research assistant, and it was therefore paramount that their privacy be protected. Consequently, procedures to ensure that the participants’ rights were protected were
implemented. Ethical approval was obtained from the Behavioural Ethics Review Board at the University of British Columbia and Institutional Review Board (IRB) of Vancouver General Hospital. To ensure the right to informed consent, each potential participant received a written and verbal invitation to learn more about the pilot study from the Patient Services Coordinator on post-operative day one. If the potential participant agreed to learn more about the pilot study, the researcher met with him on post-operative day three for approximately 10 minutes and provided full disclosure describing the purpose of the study in detail and answering any questions that arose. Written consent was obtained following full disclosure. Two copies of the consent form were signed by all participants; the researcher kept the original copy and the second copy was given to the participants. The participants were also informed that they had the right to withdraw from the pilot study at any time or to refuse to answer any questions without consequence to them or their care.

Identifying all participants by an identification code number on all research documents ensured participant confidentiality. Only the researcher knew both the identification code numbers and the men’s identities, and these were kept in a locked drawer in the researcher’s office. Access to research documents was limited to the researcher and thesis committee members. All research documents were kept in a locked drawer in the researcher’s office during data collection and analysis, and research data was stored on a computer hard drive accessible only by password. Following study completion, the research documents will be stored on the urology unit at Vancouver General Hospital in a locked drawer for 5 years. At the end of the 5-year period, the documents will be shredded.
3.9. Limitations of the Pilot Study

"Limitations" are those elements that reduce the internal or external validity of a study (Polit & Hungler, 1999). The limitations in this study are:

1. The men receiving the interventions came from a single clinical population and a single hospital setting, and were all patients of only two urologists.

2. The study used a small convenience sample, and consequently results may have limited generalizability.

3. Because of the small sample size, it was difficult to determine any significant statistical differences between groups.

4. Structured questions used in the intervention and study instruments may have limited participants’ responses.

3.10. Summary

This pilot study was undertaken to determine the feasibility of conducting a full-scale study. Feasibility was assessed in terms of the appropriateness of sampling procedures, sample recruitment, follow-up telephone intervention, and data collection including instrumentation. In this pilot study, a pretest-posttest 3-group experimental design was used to examine the potential efficacy of timing and number of follow-up telephone calls made to men following RP. Non-probability, consecutive sampling was used to select 15 men following RP, with five men in each study group who received either a 48 hour post-discharge follow-up telephone call using the standard form, a 48 hours post-discharge follow-up telephone call using an expanded form, or a 48 hour and 10 day post-discharge follow-up telephone call using an expanded form.

Information and support needs of the men were documented at the time of the follow-up telephone calls(s). A research assistant contacted each of the men at 30 days post-discharge and
conducted the 30-day post discharge interview. Ethical considerations and limitations of the pilot study were acknowledged.
CHAPTER FOUR

RESULTS

4.1. Introduction

The results of the analysis are presented in this chapter. The findings are separated into two sections. The first section describes the feasibility of sample recruitment, sampling procedures, and variability of responses on each instrument used in the study. In addition, the practical aspects of the follow-up telephone call intervention and appropriateness of data collection instruments are discussed. The second section describes the sample of 15 men and the comparisons made between the three study groups of men who received standard care and those who received the expanded follow-up telephone call intervention at 48 hours and at 48 hours and 10 days post-discharge. The three groups were compared with regards to satisfaction with discharge information and care, symptom distress, urinary function and finally, satisfaction with discharge information and care. The second section also describes the men’s information and support needs at 48 hours and 10 days post-discharge, their utilization of health care resources, and finally, the perceived usefulness of the follow-up telephone call using the standard versus the expanded form.

4.2. Feasibility

4.2.1. Sample Recruitment

The recruitment of the men (n=15) for the pilot study began on January 23, 2005 and concluded on April 1, 2005. Although the attrition rate for the pilot study was zero, it took over two months to recruit the sample of men. Generally, only one to three men per week were eligible to participate in the pilot study because the men were recruited from two surgeons who follow the same discharge protocol and remove the men’s Foley catheter at one week post-
discharge. Given this recruitment rate, it would have taken approximately two years to obtain a sample size large enough to implement a full-scale study. This is a concern for implementing a future full-scale study.

During the course of sample recruitment, approximately five men who were eligible to participate indicated they were not interested in being involved in the pilot study. The men did not provide a specific reason for their disinterest. Two of the 15 men who participated expressed concern with the length of time that would be required to participate in the pilot study. No other concerns pertaining to participation were expressed by the men.

The Patient Services Coordinator on the urology unit identified all eligible men and made the initial contact with each of the men by providing a written letter of invitation and a brief verbal invitation to participate in the pilot study on post-operative day one. The Patient Services Coordinator did not express any concerns with assisting in the recruitment of the men for the pilot study. On post-operative day three, the staff nurse who was responsible for providing direct care for each of the eligible men assisted in the recruitment phase by asking the men if they were interested in meeting with the researcher to learn more about the pilot study. The staff nurses who assisted in sample recruitment did not express any concerns regarding their involvement in the study. Similarly, the urologists did not disclose any concerns with sample recruitment, as the men were only approached following being seen by the urology team and after a discharge order had been provided.

The time in which sample recruitment occurred was on the morning of post-operative day three, before the men were discharged home from the hospital. It was observed to be an extremely busy time for the men, because they had to be assessed by the urology team, receive discharge information from the staff nurse, eat breakfast, perform self-care activities, and pack
their belongings. The time that it took to recruit each of the eligible men was approximately 20 to 30 minutes, depending on the number of questions that the men asked about study participation. However, waiting to speak to the men took anywhere between one to four hours because of the flurry of activities occurring and the difficulty in finding an appropriate time to approach the men. Maintaining privacy during sample recruitment did not pose a problem because the majority of the men were in private rooms.

4.2.2. Sampling Procedures

The size of the sample (n=15) was an obvious concern. In order to recruit a sample large enough in an efficient and timely manner, for a future study, the men will need to be recruited from a urology unit from another hospital in the Lower Mainland. Moreover, the inclusion criteria may need to be expanded to include men who have their Foley catheters in for longer than one week post-discharge so that a larger number of men are eligible for study participation.

4.2.3. Variability of Study Instruments

The responses made by the men on the Satisfaction with Discharge Information and Care Scale, implemented on post-operative day three indicated that a ceiling effect existed (see Table 3). The men responded with either the response of “Agree” or “Strongly Agree” on all four items. Only one of the men responded with “Neither Agree or Disagree” when asked if he felt ready to manage self-care at home. The majority of the men (n=11) responded that the overall care received while in the hospital was “Excellent”. The Cronbach’s alpha for this particular scale was found to be .850, which indicates strong internal consistency (Nunnally, 1978).
Table 3. Satisfaction with Discharge Information and Care Scale

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>1. Overall, I was satisfied with the information I received to help me manage at home following surgery.</td>
<td>9</td>
</tr>
<tr>
<td>2. I know what signs or symptoms that should alert me to seek medical attention after I leave the hospital.</td>
<td>8</td>
</tr>
<tr>
<td>3. I was given all the information I need to help me with my recovery</td>
<td>11</td>
</tr>
<tr>
<td>4. Overall, I feel ready to manage my self-care at home.</td>
<td>1</td>
</tr>
<tr>
<td>5. The overall care I received was:</td>
<td>4</td>
</tr>
</tbody>
</table>

The Symptom Distress Scale (SDS) implemented at 48 hours, 10 days, and 30 days post-discharge indicted that a ceiling effect existed with the men’s responses, with the majority of men reporting limited distress related to appetite, insomnia, pain, bowel functioning, and fatigue. However, a greater degree of variability existed at 30 days post-discharge as compared to the responses made by the men at 48 hours and 10 days post-discharge. The Cronbach’s alpha of the SDS at 48 hours post-discharge was found to be .744, which is a satisfactory internal consistency (Nunnally, 1978) (see Table 4).
Table 4. SDS-48 Hours (Expanded Format Telephone Call)

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Appetite</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal appetite</td>
<td>8</td>
</tr>
<tr>
<td>My appetite is usually,</td>
<td>1</td>
</tr>
<tr>
<td>but not always good</td>
<td></td>
</tr>
<tr>
<td>I don't really enjoy</td>
<td>1</td>
</tr>
<tr>
<td>my food like I used to</td>
<td></td>
</tr>
<tr>
<td>I have to force myself</td>
<td></td>
</tr>
<tr>
<td>to eat food</td>
<td></td>
</tr>
<tr>
<td>I cannot stand</td>
<td></td>
</tr>
<tr>
<td>the thought of food</td>
<td></td>
</tr>
<tr>
<td><strong>2. Insomnia</strong></td>
<td></td>
</tr>
<tr>
<td>I sleep as well as</td>
<td>4</td>
</tr>
<tr>
<td>I always have</td>
<td></td>
</tr>
<tr>
<td>I have occasional</td>
<td>5</td>
</tr>
<tr>
<td>spells of sleeplessness</td>
<td></td>
</tr>
<tr>
<td>I frequently have</td>
<td>1</td>
</tr>
<tr>
<td>trouble getting to</td>
<td></td>
</tr>
<tr>
<td>sleep and staying</td>
<td></td>
</tr>
<tr>
<td>asleep</td>
<td></td>
</tr>
<tr>
<td>have difficulty</td>
<td></td>
</tr>
<tr>
<td>sleeping almost every</td>
<td></td>
</tr>
<tr>
<td>night</td>
<td></td>
</tr>
<tr>
<td>It is almost impossible</td>
<td></td>
</tr>
<tr>
<td>for me to get a decent</td>
<td></td>
</tr>
<tr>
<td>night's sleep</td>
<td></td>
</tr>
<tr>
<td><strong>1. Pain-Frequency</strong></td>
<td></td>
</tr>
<tr>
<td>I almost never have</td>
<td>2</td>
</tr>
<tr>
<td>pain</td>
<td></td>
</tr>
<tr>
<td>I have pain once in a</td>
<td>8</td>
</tr>
<tr>
<td>while</td>
<td></td>
</tr>
<tr>
<td>I frequently have</td>
<td></td>
</tr>
<tr>
<td>pain several times a</td>
<td></td>
</tr>
<tr>
<td>week</td>
<td></td>
</tr>
<tr>
<td>I am usually in some</td>
<td></td>
</tr>
<tr>
<td>degree of pain</td>
<td></td>
</tr>
<tr>
<td>I am in some degree of</td>
<td></td>
</tr>
<tr>
<td>pain constantly</td>
<td></td>
</tr>
<tr>
<td><strong>4. Pain-Intensity</strong></td>
<td></td>
</tr>
<tr>
<td>When I have pain, it is</td>
<td>8</td>
</tr>
<tr>
<td>very mild</td>
<td></td>
</tr>
<tr>
<td>When I do have pain, it</td>
<td>1</td>
</tr>
<tr>
<td>is mildly distressing</td>
<td></td>
</tr>
<tr>
<td>The pain I do have is</td>
<td>1</td>
</tr>
<tr>
<td>fairly intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is</td>
<td></td>
</tr>
<tr>
<td>usually very intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is</td>
<td></td>
</tr>
<tr>
<td>almost unbearable</td>
<td></td>
</tr>
<tr>
<td><strong>5. Bowel</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal bowel</td>
<td>5</td>
</tr>
<tr>
<td>pattern</td>
<td></td>
</tr>
<tr>
<td>My bowel pattern</td>
<td>5</td>
</tr>
<tr>
<td>occasionally causes me</td>
<td></td>
</tr>
<tr>
<td>some discomfort</td>
<td></td>
</tr>
<tr>
<td>I frequently have</td>
<td></td>
</tr>
<tr>
<td>discomfort from my</td>
<td></td>
</tr>
<tr>
<td>present bowel pattern</td>
<td></td>
</tr>
<tr>
<td>I am usually in</td>
<td></td>
</tr>
<tr>
<td>discomfort because of</td>
<td></td>
</tr>
<tr>
<td>my present bowel pattern</td>
<td></td>
</tr>
<tr>
<td>My present bowel</td>
<td></td>
</tr>
<tr>
<td>pattern has changed</td>
<td></td>
</tr>
<tr>
<td>drastically from what</td>
<td></td>
</tr>
<tr>
<td>was normal for me</td>
<td></td>
</tr>
<tr>
<td><strong>6. Fatigue</strong></td>
<td></td>
</tr>
<tr>
<td>I am usually not</td>
<td>5</td>
</tr>
<tr>
<td>tired at all</td>
<td></td>
</tr>
<tr>
<td>I am occasionally</td>
<td>4</td>
</tr>
<tr>
<td>rather tired</td>
<td></td>
</tr>
<tr>
<td>There are frequent</td>
<td>1</td>
</tr>
<tr>
<td>periods when I am</td>
<td></td>
</tr>
<tr>
<td>quite tired</td>
<td></td>
</tr>
<tr>
<td>I am usually very</td>
<td></td>
</tr>
<tr>
<td>tired</td>
<td></td>
</tr>
<tr>
<td>Most of the time, I</td>
<td></td>
</tr>
<tr>
<td>feel exhausted</td>
<td></td>
</tr>
</tbody>
</table>

At 10 days post-discharge, there was virtually no variability in the responses made by the men on the SDS (see Table 5). This was not surprising because the measure was completed with only five men in group 3, who received the expanded call at 10 days post-discharge. Furthermore, these five men were observed to experience the least amount of symptom distress.
The Cronbach's alpha was .491, which suggests this instrument has an unsatisfactory internal consistency with such a small sample (Nunnally, 1978).

Table 5. SDS-10 Days (Expanded Format Telephone Call)

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Appetite</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal appetite</td>
<td>5</td>
</tr>
<tr>
<td>My appetite is usually, but not always good</td>
<td></td>
</tr>
<tr>
<td>I don't really enjoy my food like I used to</td>
<td></td>
</tr>
<tr>
<td>I have to force myself to eat food</td>
<td></td>
</tr>
<tr>
<td>I cannot stand the thought of food</td>
<td></td>
</tr>
<tr>
<td><strong>2. Insomnia</strong></td>
<td></td>
</tr>
<tr>
<td>I sleep as well as I always have</td>
<td>2</td>
</tr>
<tr>
<td>I have occasional spells of sleeplessness</td>
<td>3</td>
</tr>
<tr>
<td>I frequently have trouble getting to sleep and staying asleep</td>
<td></td>
</tr>
<tr>
<td>Have difficulty sleeping almost every night</td>
<td></td>
</tr>
<tr>
<td>It is almost impossible for me to get a decent night's sleep</td>
<td></td>
</tr>
<tr>
<td><strong>3. Pain-Frequency</strong></td>
<td></td>
</tr>
<tr>
<td>I almost never have pain</td>
<td>3</td>
</tr>
<tr>
<td>I have pain once in a while</td>
<td>2</td>
</tr>
<tr>
<td>I frequently have pain several times a week</td>
<td></td>
</tr>
<tr>
<td>I am usually in some degree of pain</td>
<td></td>
</tr>
<tr>
<td>I am in some degree of pain constantly</td>
<td></td>
</tr>
<tr>
<td><strong>4. Pain-Intensity</strong></td>
<td></td>
</tr>
<tr>
<td>When I have pain, it is very mild</td>
<td>5</td>
</tr>
<tr>
<td>When I do have pain, it is mildly distressing</td>
<td></td>
</tr>
<tr>
<td>The pain I do have is fairly intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is usually very intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is almost unbearable</td>
<td></td>
</tr>
<tr>
<td><strong>1. Bowel</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal bowel pattern</td>
<td>4</td>
</tr>
<tr>
<td>My bowel pattern occasionally causes me some discomfort</td>
<td>1</td>
</tr>
<tr>
<td>I frequently have discomfort from my present bowel pattern</td>
<td></td>
</tr>
<tr>
<td>I am usually in discomfort because of my present bowel pattern</td>
<td></td>
</tr>
<tr>
<td>My present bowel pattern has changed drastically from what was normal for me</td>
<td></td>
</tr>
<tr>
<td><strong>6. Fatigue</strong></td>
<td></td>
</tr>
<tr>
<td>I am usually not tired at all</td>
<td>3</td>
</tr>
<tr>
<td>I am occasionally rather tired</td>
<td>2</td>
</tr>
<tr>
<td>There are frequent periods when I am quite tired</td>
<td></td>
</tr>
<tr>
<td>I am usually very tired</td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel exhausted</td>
<td></td>
</tr>
</tbody>
</table>
The SDS at 30 days post-discharge demonstrated a greater of variability in the men’s responses compared to at 48 hours and 10 days post-discharge (see Table 6). Variability existed with three symptoms including insomnia, distress of pain and severity of pain, and fatigue. The Cronbach’s alpha was found to be .732, which is a satisfactory internal consistency (Nunnally, 1978).

Table 6. SDS-30 Days Post-Discharge

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Appetite</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal appetite</td>
<td>14</td>
</tr>
<tr>
<td>My appetite is usually, but not always good</td>
<td>1</td>
</tr>
<tr>
<td>I don’t really enjoy my food like I used to</td>
<td></td>
</tr>
<tr>
<td>I have to force myself to eat food</td>
<td></td>
</tr>
<tr>
<td>I cannot stand the thought of food</td>
<td></td>
</tr>
<tr>
<td><strong>2. Insomnia</strong></td>
<td></td>
</tr>
<tr>
<td>I sleep as well as I always have</td>
<td>8</td>
</tr>
<tr>
<td>I have occasional spells of sleeplessness</td>
<td>4</td>
</tr>
<tr>
<td>I frequently have trouble getting to sleep and staying asleep</td>
<td>3</td>
</tr>
<tr>
<td>I have difficulty sleeping almost every night</td>
<td></td>
</tr>
<tr>
<td>It is almost impossible for me to et a decent night’s sleep</td>
<td></td>
</tr>
<tr>
<td><strong>1. Pain-Frequency</strong></td>
<td></td>
</tr>
<tr>
<td>I almost never have pain</td>
<td>6</td>
</tr>
<tr>
<td>I have pain once in a while</td>
<td>8</td>
</tr>
<tr>
<td>I frequently have pain several times a week</td>
<td>1</td>
</tr>
<tr>
<td>I am usually in some degree of pain</td>
<td></td>
</tr>
<tr>
<td>I am in some degree of pain constantly</td>
<td></td>
</tr>
<tr>
<td><strong>4. Pain-Intensity</strong></td>
<td></td>
</tr>
<tr>
<td>When I have pain, it is very mild</td>
<td>9</td>
</tr>
<tr>
<td>When I do have pain, it is mildly distressing</td>
<td>6</td>
</tr>
<tr>
<td>The pain I do have is fairly intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is usually very intense</td>
<td></td>
</tr>
<tr>
<td>The pain I have is almost unbearable</td>
<td></td>
</tr>
<tr>
<td><strong>5. Bowel</strong></td>
<td></td>
</tr>
<tr>
<td>I have my normal bowel pattern</td>
<td>11</td>
</tr>
<tr>
<td>My bowel pattern occasionally causes me some discomfort</td>
<td>3</td>
</tr>
<tr>
<td>I frequently have discomfort from my present bowel pattern</td>
<td>1</td>
</tr>
<tr>
<td>I am usually in discomfort because of my present bowel pattern</td>
<td></td>
</tr>
<tr>
<td>My present bowel pattern has changed drastically from what was normal for me</td>
<td></td>
</tr>
<tr>
<td><strong>6. Fatigue</strong></td>
<td></td>
</tr>
<tr>
<td>I am usually not tired at all</td>
<td>4</td>
</tr>
<tr>
<td>I am occasionally rather tired</td>
<td>7</td>
</tr>
<tr>
<td>There are frequent periods when I am quite tired</td>
<td>4</td>
</tr>
<tr>
<td>I am usually very tired</td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel exhausted</td>
<td></td>
</tr>
</tbody>
</table>
* Missing data=1
Compared to the other study instruments, the Expanded Prostate Cancer Index Composite (EPIC) Urinary Assessment Scale, implemented at 30 days post-discharge, illustrated greater variability in participant responses (see Table 7). Only the item on bleeding with urination was found to have a ceiling effect, with no men reporting difficulties with this symptom. However, the Cronbach’s alpha for the EPIC was .458, which is the lowest of all the scales used in the pilot study and raises some concerns related to the reliability of this measure to assess urinary-specific symptoms at 30 days post-discharge.

Table 7. EPIC Urinary Assessment

<table>
<thead>
<tr>
<th>Item</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Over the past week, how often have you leaked urine?</td>
<td></td>
</tr>
<tr>
<td>More than once a day</td>
<td>13</td>
</tr>
<tr>
<td>About once a day</td>
<td></td>
</tr>
<tr>
<td>More than once a week</td>
<td></td>
</tr>
<tr>
<td>About once a week</td>
<td></td>
</tr>
<tr>
<td>Rarely or never</td>
<td>2</td>
</tr>
<tr>
<td>2. Over the past week, how often have you urinated blood?</td>
<td></td>
</tr>
<tr>
<td>More than once a day</td>
<td></td>
</tr>
<tr>
<td>About once a day</td>
<td></td>
</tr>
<tr>
<td>More than once a week</td>
<td></td>
</tr>
<tr>
<td>About once a week</td>
<td></td>
</tr>
<tr>
<td>Rarely or never</td>
<td>15</td>
</tr>
<tr>
<td>3. Over the past week, how often have you had pain or burning with urination?</td>
<td></td>
</tr>
<tr>
<td>More than once a day</td>
<td>2</td>
</tr>
<tr>
<td>About once a day</td>
<td>3</td>
</tr>
<tr>
<td>More than once a week</td>
<td>2</td>
</tr>
<tr>
<td>About once a week</td>
<td>8</td>
</tr>
<tr>
<td>Rarely or never</td>
<td></td>
</tr>
<tr>
<td>4. Which of the following best describes your urinary control during the last week?</td>
<td></td>
</tr>
<tr>
<td>No urinary control whatsoever</td>
<td>1</td>
</tr>
<tr>
<td>Frequent dribbling</td>
<td>7</td>
</tr>
<tr>
<td>Occasional dribbling</td>
<td>6</td>
</tr>
<tr>
<td>Total control</td>
<td>1</td>
</tr>
<tr>
<td>5. How many pads or adult diapers per day did you usually use to control leakage during the last week?</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>1 pad per day</td>
<td>5</td>
</tr>
<tr>
<td>2 pads per day</td>
<td></td>
</tr>
<tr>
<td>3 or more pads per day</td>
<td>4</td>
</tr>
</tbody>
</table>
6. How big a problem, if any, has each of the following been for you during the week?

<table>
<thead>
<tr>
<th>Condition</th>
<th>No problem</th>
<th>Very Small problem</th>
<th>Small problem</th>
<th>Moderate problem</th>
<th>Big problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dripping or leaking urine</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Pain or burning on urination</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bleeding with urination</td>
<td>15</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Weak urine stream or incomplete emptying</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Waking up to urinate</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Need to urinate frequently during the day</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

7. Overall, how big a problem has your urinary function been for you during the last week?

<table>
<thead>
<tr>
<th>Condition</th>
<th>No problem</th>
<th>Very Small problem</th>
<th>Small problem</th>
<th>Moderate problem</th>
<th>Big problem</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
A ceiling effect also existed on the Satisfaction with Post-Discharge Information and Care Scale, implemented at 30 days post-discharge (see Table 8). The responses made by the men were predominantly “Agree” or “Strongly Agree”. The Cronbach’s alpha was found to be .683, which is a low internal consistency for a measure (Nunnally, 1978).

Table 8. Satisfaction with Post-Discharge Information and Care Scale

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>1. Overall, I was satisfied with the information I received during the telephone call(s) to help me manage at home following surgery.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2. I know what signs or symptoms that should alert me to seek medical attention after discharge.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I was given all the information during the follow-up telephone call(s) that I needed to help me with my recovery</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The overall care I received was:</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Table 9. Reliability of Study Instruments-Cronbach's Alpha

<table>
<thead>
<tr>
<th>Study Instrument</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with Discharge Information and Care Scale</td>
<td>Cronbach’s Alpha= .850</td>
</tr>
<tr>
<td>SDS-48 Hours</td>
<td>Cronbach’s Alpha= .744</td>
</tr>
<tr>
<td>SDS-10 Days</td>
<td>Cronbach’s Alpha= .491</td>
</tr>
<tr>
<td>SDS-30 days</td>
<td>Cronbach’s Alpha= .732</td>
</tr>
<tr>
<td>EPIC-30 Days</td>
<td>Cronbach’s Alpha= .458</td>
</tr>
<tr>
<td>Satisfaction with Post-Discharge Information and Care Scale</td>
<td>Cronbach’s Alpha= .683</td>
</tr>
</tbody>
</table>

4.2.4. Practical Aspects of the Follow-up Telephone Intervention

The length of the telephone call interventions varied according to the flow of conversation, issues or concerns raised by the men, and questions asked by the men. The 48-hour follow-up telephone calls took between 10 to 40 minutes to complete, whereas the 10-day follow-up telephone calls took between 10 to 20 minutes to complete. Data collection during the intervention took approximately five minutes to finish. Four of the 15 men lived at a distance from Vancouver, BC and long distance telephone calls were required to complete the intervention and data collection. Given the reported length of the telephone calls, repeated long distant telephone calls would be a costly endeavour in future studies.

All of the telephone calls were conducted in the evening after 1800h and no later then 2000h. One of the men who received both the 48-hour and 10-day post-discharge telephone call expressed concern with the timing of the first telephone call and requested that he be called after 1900h for his 10-day follow-up telephone call. The men were predominantly contacted on the
initial attempt and only on a few occasions was it necessary to make two attempts to contact the men.

The men did not have difficulty answering or understanding the questions on either the standard short form or the expanded follow-up telephone call forms. The expanded follow-up telephone call form was found to encourage men to elaborate on their ability to manage self-care practices, which included care of their Foley catheter and surgical incision, resuming activities, appetite and fluid intake, bowel function, pain management, and management of urinary incontinence once the catheter had been removed. The expanded follow-up telephone form also specifically asked the men if they required additional information about each self-care practice. In addition, the expanded format telephone call encouraged the men to express their fears and concerns, such as how anxiety provoking it was to have to wait for their pathology report during the 48-hour follow-up telephone call and concerns experienced as they cope with urinary incontinence during the 10 day follow-up telephone call.

4.2.5. Instrument Implementation

The men took approximately 5 to 30 minutes to complete the pilot study’s instruments. The Satisfaction with Discharge Information and Care Scale required the least amount of time to complete, with men averaging five minutes to answer the related items. The instruments that were implemented at 30 days post-discharge took the men approximately 30 minutes to complete.

The timing of the instruments was observed to be appropriate, except for the instruments that were implemented at 30 days post-discharge because some of the men (n=3) stated that they “could not remember” the follow-up telephone call intervention. Perhaps data collection at 30 days is too far removed in terms of time from when the telephone interventions were
implemented and a shorter time period may be required in future studies to ensure that recall bias is not an issue.

The selected instruments were observed to be easily understood by the men. Only one of the men found the questions on the Satisfaction with Discharge Information and Care Scale difficult to answer, as he was “unsure of the problems he would experience once home”. The rest of the sample of men did not express any concerns pertaining to the wording of questionnaire items or the types of questions posed.

4.3. Description

4.3.1. Sample

The socio-demographic information of the sample is presented on Table 10. The mean age of the men was 61.9 years, with a SD of 1.82. All of the men were married or had a partner and had at least a high school diploma. The majority of the men reported living in an urban residence (n=13), were retired (n=8), and had a household income of greater than $50,000 (Canadian) per year (n=12). The majority of the men reported no previous surgeries in their lifetime (n=9). Information sources that the men reported using related to learning more about the RP procedure included: urologist (n=14), “Before and After a Radical Prostatectomy Booklet” (n=12), family physician (n=11), pamphlets from physician’s office (n=9), internet (n=8), and talking to someone who had an RP (n=8). It is apparent from the socio-demographic information that the sample was homogenous in terms of first language spoken, ethnicity, marital status, residence, and education.
Table 10. Socio-Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Socio-Demographic Variable</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 years to less than 50 years</td>
<td>1</td>
<td>6.0</td>
</tr>
<tr>
<td>50 years to less than 60 years</td>
<td>4</td>
<td>26.6</td>
</tr>
<tr>
<td>60 years to less than 70 years</td>
<td>10</td>
<td>66.6</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or Common-law</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Diploma</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Post-Secondary Diploma/Degree</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>Graduate Degree (Master’s, Doctorate)</td>
<td>1</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Income per Annum (Canadian Funds)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$40,000 &lt; $60,000</td>
<td>12</td>
<td>80.0</td>
</tr>
<tr>
<td>Did Not Wish to Answer</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>13</td>
<td>86.6</td>
</tr>
<tr>
<td>South Asian/Pakistan/Indo-Canadian</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>13</td>
<td>86.6</td>
</tr>
<tr>
<td>Rural</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Part-Time</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Retired</td>
<td>8</td>
<td>53.3</td>
</tr>
<tr>
<td>Not Employed</td>
<td>1</td>
<td>6.0</td>
</tr>
</tbody>
</table>
4.3.2. Differences between Study Groups

This section highlights the differences found amongst the three study groups. Specifically, all three groups are compared in terms of satisfaction with discharge information and care at three days post-operation. At 48 hours post-discharge, groups 2 and 3 were compared in terms of level of symptom distress. Finally, at 30 days post-discharge, all three groups were compared in terms of symptom distress, urinary function, and satisfaction with post-discharge information and care. Due to the small sample size, the use of parametric statistics was not feasible, therefore, reporting the means and SD is not appropriate.

4.3.3. Comparison of Satisfaction with Discharge Information and Care-Third Post-Operative Day

Table 11 presents the results of non-parametric statistics, which examined the associations between the men’s discharge teaching and their satisfaction with discharge information and care received. No significant associations were found ($p = .514$). Due to the limited sample size of 15 men, a Type II error, where a significant result is not found because of insufficient sample size, may have occurred. Therefore, the relationship between the men’s level satisfaction with discharge information and care received warrants further investigation.

Table 11. Satisfaction with Discharge Information and Care Scale

<table>
<thead>
<tr>
<th>SDICS</th>
<th>Frequency</th>
<th>Mean Rank</th>
<th>DF</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5</td>
<td>6.20</td>
<td>2</td>
<td>.514</td>
</tr>
<tr>
<td>Group 2</td>
<td>5</td>
<td>8.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>5</td>
<td>8.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3.4. Comparison of SDS-48 Hours Post-Discharge

Table 12 presents the results of non-parametric statistics, which examined the two experimental groups level of symptom distress at 48-hours post-discharge. No significant associations were found ($p = .592$). Due to the limited sample size of 10 men who received the expanded follow-up telephone call, a Type II error may have occurred. Therefore, the men's level of symptom distress at 48 hours post-discharge requires further investigation in future studies that are sufficiently powered.

Table 12. SDS-48 Hours Post-Discharge

<table>
<thead>
<tr>
<th>SDS</th>
<th>Frequency</th>
<th>Mean Rank</th>
<th>DF</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 2</td>
<td>5</td>
<td>6.00</td>
<td>2</td>
<td>.592</td>
</tr>
<tr>
<td>Group 3</td>
<td>5</td>
<td>5.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.5. Comparison of SDS-30 Days Post-Discharge

Table 13 presents the results of non-parametric statistics, which examined the associations between the type of follow-up telephone call intervention and the level of symptom distress expressed by the men at 30 days post-discharge. No significant associations were found ($p = .270$). Due to the limited sample size, a Type II error may have occurred. Therefore, the relationship between the follow-up telephone call intervention and the men's level of symptom distress at 30 days post-discharge warrants further investigation.

Table 13. SDS-30 Days Post-Discharge

<table>
<thead>
<tr>
<th>SDS</th>
<th>Frequency</th>
<th>Mean Rank</th>
<th>DF</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5</td>
<td>9.90</td>
<td>2</td>
<td>.270</td>
</tr>
<tr>
<td>Group 2</td>
<td>5</td>
<td>8.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>5</td>
<td>5.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3.6. Comparison of EPIC-30 Days Post-Discharge

Table 14 presents the results of non-parametric statistics, which examined the associations between the follow-up telephone call intervention and the three groups' level of urinary function at 30 days post-discharge. No significant associations were found ($p = .340$). Due to the limited sample size of 15 men, a Type II error may have occurred. Therefore, the relationship between the follow-up telephone call intervention and the men's level of urinary function at 30 days post-discharge requires further investigation.

Table 14. EPIC-30 Days Post-Discharge

<table>
<thead>
<tr>
<th>EPIC</th>
<th>Frequency</th>
<th>Mean Rank</th>
<th>DF</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5</td>
<td>10.20</td>
<td>2</td>
<td>.340</td>
</tr>
<tr>
<td>Group 2</td>
<td>5</td>
<td>7.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>5</td>
<td>6.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.7. Comparison of Satisfaction with Post-Discharge Information and Care-30 Days Post-Discharge

Table 15 presents the results of non-parametric statistics, which examined the associations between the follow-up telephone call intervention and men's satisfaction with post-discharge information and care of the three groups. No significant associations were found ($p = .401$). Due to the limited sample size of 15 men, a Type II error may have occurred and warrants further investigation.

Table 15. Satisfaction with Post-Discharge Information and Care-30 Days Post-Discharge

<table>
<thead>
<tr>
<th>SPDICS</th>
<th>Frequency</th>
<th>Mean Rank</th>
<th>DF</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5</td>
<td>5.90</td>
<td>2</td>
<td>.401</td>
</tr>
<tr>
<td>Group 2</td>
<td>5</td>
<td>9.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>5</td>
<td>8.60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3.8. Information and Support Needs at 48 Hours Post-Discharge

The information and support needs of the men that were identified at 48 hours post-discharge are listed in Table 16. The three most important information needs at 48 hours post-discharge that the men identified were: care of the Foley catheter, pain management, and care of the surgical incision. Specific information needs held by the men about their Foley catheter included how to secure the catheter (n=1), relieve pulling of the catheter (n=1), drain the catheter bags (n=2), care of the drainage bags (n=2), manage clots in the Foley catheter (n=1), urinary leakage from around the catheter (n=2) and control bladder spasms (n=7). Men were also interested in learning more about how the Foley catheter would be removed (n=1). Information needs specific to managing pain included how to relieve pain with movement (n=5), manage pain caused by sitting (n=3), control generalized pain (n=2) as well as the use of pain medication (n=6). Finally, men’s information needs related to caring for their incision included how to protect their incision when coughing (n=4), general care of the incision (n=4) and how to care for the internal incision (n=1). One support need that was expressed by two of the men at 48 hours was emotional support as they waited for their pathology report.

Table 16. Information and Support Needs at 48 Hours Post-Discharge

<table>
<thead>
<tr>
<th>Information/Support Need</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of the Foley Catheter</td>
<td>17</td>
</tr>
<tr>
<td>Pain</td>
<td>16</td>
</tr>
<tr>
<td>Bowel Functioning</td>
<td>5</td>
</tr>
<tr>
<td>Activity</td>
<td>5</td>
</tr>
<tr>
<td>Incision Care</td>
<td>9</td>
</tr>
<tr>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Support</td>
<td>1</td>
</tr>
</tbody>
</table>
4.3.9. Information and Support Needs at 10 Days Post-Discharge

The information and support needs of the men that were identified at 10 days post-discharge are listed in Table 17. The commonly reported information needs of the men at 10 days post-discharge included how to manage urinary incontinence (n=2) and perform Kegel exercises (n=3). Furthermore, the men still had information needs about how to relieve constipation (n=2), manage pain (n=1) and use of analgesics (n=1). One support need that was expressed by two of the men was frustration and despair with urinary incontinence while another man expressed concern about not hearing from his urologist with his pathology report.

Table 17. Information and Support Needs at 10 Days Post-Discharge

<table>
<thead>
<tr>
<th>Information/Support Need</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary Blockage</td>
<td>2</td>
</tr>
<tr>
<td>Urinary Incontinence</td>
<td>5</td>
</tr>
<tr>
<td>Pain</td>
<td>2</td>
</tr>
<tr>
<td>Bowel Functioning</td>
<td>2</td>
</tr>
<tr>
<td>Activity</td>
<td>3</td>
</tr>
<tr>
<td>Incision Care</td>
<td>1</td>
</tr>
<tr>
<td>Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>Support</td>
<td>3</td>
</tr>
</tbody>
</table>

4.3.10. Comparison of Information and Support Needs at 48 Hours and 10 Days Post-Discharge

The information and support needs of the men in this pilot study changed over time. At 48 hours post-discharge, the men required information about how to manage and care for their Foley catheter, whereas at 10 days post-discharge, the men had their Foley catheters removed and wanted information about how to manage urinary incontinence and perform Kegel exercises.
The information needs that were observed to remain constant over time included pain management, bowel functioning, resuming normal activity, care of the incision, and fluid and food intake. Some of the support needs of the men in this pilot study were, however, observed to change over time. For instance, at 48 hours post-discharge, the men were anxiously waiting to hear about their pathology report, whereas at 10 days post-discharge, the men were coping with urinary incontinence.

4.3.11. Utilization of Health Care Resources

It was observed that the men in group 3, who received two follow-up telephone calls using the expanded format, used the least health care resources during the first 30 days post-discharge compared to men in group 1 who received standard care and men in group 2 who received the expanded format follow-up telephone call at only 48 hours post-discharge. In addition, the men in group 2, who received a follow-up telephone call at 48 hours post-discharge using the expanded format, utilized health care resources more often than men in the standard care group. The two health care resources used by the men most often during the first 30 days post-discharge were urologists and general practitioners. The reasons why the men went to the urologist included follow-up visit, clots in the Foley catheter, blood in the urine, wound infection, urinary incontinence, and reviewing pathology report. The reasons why the men went to see their general practitioners included follow-up visit, removal of the Foley catheter and staples, wound related problems, itchiness, and insurance papers. During the first few weeks following discharge, six of the men made five calls and two visits to the urology unit regarding swelling of the testis, replacement of catheter bag and leg bag, bladder spasms, blood in the urine, and leakage of urine. In addition, one of the men required follow-up with a Home Care Nurse or Walk-in-Clinic to have his dressing changed almost on a daily basis during the first
week following discharge. The health care resources used least during the first 30 days post-discharge included visiting the emergency department, home care services, and the Prostate Resource Centre at Vancouver General Hospital.

4.3.12. Usefulness of the Follow-Up Telephone Call at 48 Hours and 10 Days Post-Discharge

The majority of the five men (n=4) in the standard care group perceived that the intervention was “somewhat useful”. The majority of the 10 men (n=7) in either study group 2 or 3 found the intervention to be “very useful”. When the men in the standard care group were asked what was most useful about the follow-up telephone calls they reported that the follow-up telephone call provided “reassurance”. One of the men, however, reported that he “could not remember” the call. The men in study group 2 and 3 reported that the follow-up telephone calls were a way to receive “reassurance, information, ask questions, and help solve problems”. When asked if there was anything about the follow-up telephone calls that was not helpful, all of the men (n=15) reported “no”. The overall care received through the study intervention was reported by the men to be “good” (n=1), “very good” (n=7), or “excellent” (n=7).

4.4. Summary

In terms of study feasibility issues, several key barriers to sample recruitment procedures were observed in this pilot study. With regards to sample recruitment, a substantial period of time was needed to obtain a small sample of 15 men. A noticeable barrier to sampling procedures was the inclusion criteria, which only allowed those men who had their Foley catheter removed at one week to participate. The appropriateness of data collection instruments was described and illustrated limited variability in the sample with regards to their satisfaction with discharge information and care, symptom distress, urinary function, and satisfaction with post-
discharge information and care. The men were all observed to be high functioning with respects to their symptom distress, as they were all observed to have limited symptom distress. In terms of the practical aspects of the follow-up telephone call intervention, the calls took between 10 to 20 minutes, therefore, repeated long distant calls would be a costly endeavour. Finally, with regards to instrument implementation, the timing of instrumentation at 30-days post-discharge was found to be problematic because some of the men reported that they could not remember the follow-up telephone call intervention.

Overall, the sample in this pilot study was found to be predominantly homogenous as the men were all married, between the age of 60 to 70, well educated, had a high annual income, predominantly Caucasian, lived in an urban centre, and were retired. Comparisons amongst groups revealed no significant relationships between the standard or expanded follow-up telephone call intervention and the men’s symptom distress, urinary function, and satisfaction with post-discharge information and care. Further investigation is warranted because of the limited sample size and the potential risk of Type II error.

The information and support needs expressed by the men at 48 hours post-discharge included how to care of the Foley catheter, manage pain, and care of the surgical incision. The support need identified at this time was the need for emotional support, as they anxiously waited for their pathology results. At 10 days post-discharge, the men predominantly wanted information about how to manage urinary incontinence and how to perform Kegel exercises. The support need identified at this time remained providing emotional support as the men learned to cope with urinary incontinence. The utilization of health care resources observed during the first 30 days post-discharge revealed that the two health care resources most commonly used by the men during the first 30 days post-discharge were their urologist and general practitioner.
men who received the expanded call at 48 hours and 10 days post-discharge used the least number of health care resources. Finally, the question probing the usefulness of the follow-up telephone call intervention showed that the men who received the standard follow-up telephone call perceived the call to be “somewhat useful”; whereas the men in study groups 2 and 3 reported that the expanded call was “very useful”.

CHAPTER FIVE

DISCUSSION

5.1. Introduction

In this chapter primary study outcomes are discussed. Included is an assessment of the feasibility of conducting a large-scale randomized clinical trial of an expanded discharge follow-up intervention following RP in relation to accessing and recruiting a population of men. An interpretation of the study findings regarding the appropriateness of selected study instruments is also presented. The major information and support need expressed by the men at 48 hours and 10 days post-discharge are considered. Finally, recommendations for further research are provided.

5.2. Feasibility of a Larger Study Examining the Efficacy of a Follow-up Intervention

The assessment of the feasibility of conducting a large-scale randomized clinical trial of an expanded discharge follow-up intervention following RP was directed toward determining the viability of accessing and recruiting a population of men who had underwent RP and the identification of barriers encountered in conducting the pilot study. A review of the data collected throughout the implementation phase of the pilot study suggests that a large-scale study examining the efficacy of the timing of follow-up telephone calls to men following RP would be feasible if financial resources were available to hire a research assistant to assist with recruitment efforts, the follow-up telephone call intervention, and data collection. Because the follow-up telephone call intervention is provided to men following RP, the research assistant would need to be knowledgeable about the procedure, the post-operative recovery period, and the potential side effects of treatment.
5.2.1. Feasibility of Accessing the Population of Interest

Accessing a population of men who had undergone RP to participate in the pilot study in a timely manner became one of the greatest challenges during the pilot study recruitment phase. This has important implications to the design of a future full-scale study, as recruitment problems may be an important reason why clinical trials potentially fail (Bissonnette, Logan, Davies, & Graham, 2005). The following is a delineation of the implications for each barrier to future large-scale study and potential recommendations.

The first barrier to accessing potential subjects was the inadequate number of RP cases that were conducted each week by the two surgeons involved in subject recruitment. Over the duration of the 11 week recruitment phase, there were six weeks when there were two or less eligible subjects to recruit. Estimates indicate that it would take approximately two years to obtain an adequate sample of men to generate enough power to detect statistically significant differences between treatment and control groups. One recommendation to this recruitment issue would be to recruit men from other urology units in the Lower Mainland of British Columbia. This strategy has been supported by other researchers, who suggest that one way to optimize subject recruitment is to increase the number of sites used to find subjects (Bissonnette et al., 2005). This strategy, according to Polit and Hungler (1999), would also increase the generalizability of the study findings.

In the current pilot study, the majority of the men (n=13) were English speaking and Caucasian, which does not reflect the multicultural nature of the region’s population. In the past several decades, Canada has seen an influx of immigrants, with 18.4% of the population reported being born outside of the country (Statistics Canada, 2003). The province of British Columbia is a particularly ethnically and culturally diverse region; for instance, 40,423 new immigrants
relocated to British Columbia between July 1st, 2004 and June 30th, 2005 (Statistics Canada, 2006). According to Statistics Canada, in 2001 there were 575,780 Asian immigrants and 1,009,815 total immigrants residing in British Columbia, Canada (Statistics Canada, 2006). Therefore, the recruitment of subjects from hospitals located in different regions of the Lower Mainland will help to ensure that the sample is in fact representative of the diverse provincial population, which further increases the generalizability of the study. It is recommended that surgeons from other hospitals in the Lower Mainland, such as Richmond Hospital, be invited to participate in the study recruitment phase. For example, a surgeon, who currently practices at Richmond Hospital did his residency training at Vancouver General Hospital during the Davison et al. study in 2003 and indicated interest in using the same discharge-teaching booklet. Within the Vancouver Costal Health Authority, there has been 182 RP cases done at Vancouver General Hospital, 65 RP cases done at University of British Columbia Hospital, 36 RP cases done at Richmond Hospital, 21 RP cases done Lions Gate Hospital, and 14 RP cases done at Saint Paul’s Hospital (Rikki Teja, Data Analyst, QUIST Data from April 1st, 2005 to March 31st, 2006). This would be an ideal opportunity to expand the discharge program and standardize care provided to men following RP in Vancouver Costal Health Authority as well as expand access to potential subjects.

The second challenge to accessing potential subjects identified during the pilot study was the high proportion of men who opted not to participate. Unfortunately, the reasons why the men were not interested in participating in the study were not disclosed nor addressed by the staff nurses who were providing direct care to the men and were given the task of asking if they would be interested in speaking to the research nurse and learning more about the pilot study. None of the staff nurses had previous experience in subject recruitment and the researcher failed to
provide them with instructions or with a written script as to how to recruit subjects. In a full-scale study, the recruitment phase would be enhanced if the individual presenting the study to potential subjects were confident in presenting the study and discussing the possible benefits of their participation. Therefore, in a full-scale study it would be appropriate to have a research assistant who is impartial and not involved in providing direct care approach the men to invite them to participate and explain the study. Those interested could contact the researchers who would then obtain consent and socio-demographic data, and implement the study instruments. During this pilot study, the staff nurses who assisted with subject recruitment were observed to be extremely busy, with limited time available to engage with potential subjects and discuss the pilot study. A research assistant would not have the same time constraints that are imposed on the nursing staff and could take the time to introduce the study to the men and, gain a sense if the men were interested in participating and if not, identifying a reason for their lack of interest.

Miller, Johnson, Mackay, and Budz (1997) reported that having a research assistant to coordinate subject recruitment was a valuable strategy, which was considerate of the staff nurses' busy work schedules. In addition, it has been recommended that when implementing clinical research, it is imperative to have sufficient resources to ensure that staff nurses are not burdened by the research (Miller et al.).

The third barrier to accessing potential subjects was the time of day in which sample recruitment occurred. For this pilot study, sample recruitment occurred on the third post-operative day before the men were discharged home. The morning of discharge was a busy time for the men as they waited to be assessed by the team of urology residents, reviewed discharge teaching with their primary nurse, engaged in self-care activities, ate breakfast, and arranged their belongings and transportation home. The researcher who recruited the men for the pilot study
generally spent 2 to 3 hours waiting to speak to the men. In a full-scale study with a sample size of 159 men, it would not be efficient to have such a prolonged recruitment process. Since discharge teaching for these men begins on post-operative day one and is reinforced during their hospitalization, it would be advantageous to conduct subject recruitment the evening before discharge, when the men are less busy.

The fourth barrier to subject recruitment can be attributed to the predefined inclusion criteria. Determining the appropriate inclusion criteria significantly affects the successful recruitment of subjects into a study (Cambron, Hawk, Evans, & Long, 2004). The inclusion criteria is appropriate and follows the same inclusion criteria used by Davison et al. (2004) in their study with the same population of men, except Davison et al. did not limit the inclusion of men to only two of the surgeons who follow the same protocol for removal of the Foley catheter. As a result Davison et al. were able to recruit a sample of 100 men following an RP from the same nursing unit used in this pilot study in approximately six months. By modifying this criterion, the population of eligible men would be expanded and the process of subject recruitment would be accelerated. Therefore, it is the recommended that in a full-scale study that the inclusion criteria be expanded to include men from all surgeons who perform RP.

5.3. Appropriate Measures of Study Outcome Variables

The findings from this pilot study illustrated that the outcome measures selected to assess the study variables may not be sensitive in determining key differences between groups. A ceiling effect was observed, with minimal variability found in the measures assessing satisfaction with discharge information and care, symptom distress, urinary function, and satisfaction with post-discharge information and care. Possible changes to selected measures and recommendations for use of more appropriate instruments are discussed.
5.3.1. Satisfaction with Discharge Information and Care Scale

The Satisfaction with Discharge Information and Care Scale implemented on post-operative day three prior to the men being discharged home was first used by Davison et al. (2004) in their study to determine if men perceived that their information needs had been met prior to discharge and that they were ready to manage self-care at home. The findings from Davison et al.'s study showed that a ceiling effect existed with this instrument, as all the men reported their information needs had been met to help them manage their recovery. Similar findings were observed in this pilot study, as all of the men responded that they were prepared to manage their self-care at home and that their information needs had been met. This finding is consistent with previous research conducted over the past three decades, which shows that patients consistently report high levels of satisfaction with information and care at time of discharge (Bredart et al., 2002; Collins & O'Cathain, 2003; Kristjanson, 1993; Stevens, Reininga, Boss & van Horn, 2006; Sitzia, 1999; Sitzia & Wood, 1997). The high levels of satisfaction may be attributed to patients believing that positive responses are more acceptable and appropriate in clinical settings (Stevens et al.). Findings from Kane, Maciejewski, and Finch (1997) also proposed that reported patient satisfaction is associated with how the patient feels at that moment. This is further substantiated by research that suggests that patients may harbour gratitude for the care received while they were in the hospital, but in actuality, they may express lower satisfaction once home and detached from the hospital setting (Mancuso et al., 2003). Satisfaction may also lessen over time because the time lag allows for the patient to decide if they were in reality satisfied with the health care professional's information (Jackson, Chamberlain & Kroenke, 2001). Recent research by Stevens et al. support this finding as satisfaction with post-operative information lessened over time following discharge.
The ceiling effect, which was observed in this pilot study, limits the ability of the questionnaire to assess and emphasize aspects of discharge information and care that may require improvement. This concern is supported by Bredart et al. (2002), who concurs that a ceiling effect restricts the ability to determine what aspect of an intervention needs to be improved and what does not. Therefore, it is recommended that either the Satisfaction with Discharge Information and Care Scale is re-piloted with an adequate sample size or be revised to better capture men's experiences, their satisfaction with the discharge process and related information and care. This can be accomplished by modifying the current scale to include new items that reflect different aspects of the discharge process or capture a different construct other than satisfaction. Sitzia and Wood (1997) argue that patient satisfaction is often achieved unless an extreme negative event has occurred. Therefore, a positive response in a satisfaction survey should not be surmised to indicate that care was good, but simply that nothing particularly bad occurred. By identifying whether the experience met the men's expectation related to the information and care received may be more appropriate. This suggestion is supported by Pager (2004) who states that the "dominant theoretical model of satisfaction involves meeting patient expectations" (p.1788). Likert-type questions could include: *The information I received to help me manage at home met my expectation?* *The information given about the signs and symptoms that require medical attention met my expectation?* Responses range from 1= "strongly disagree" to 5= "strongly agree." With regards to evaluating the overall care received an appropriate questions may be: *The overall care I received met my expectation?* Responses for expectations with the overall care received range from 1= "strongly disagree" to 5= "strongly agree."
Another consideration would be to integrate more qualitative measures through the use of open-ended questions as opposed to using a scale to gain an understanding of the men’s overall discharge experience. It has been observed that patients will often demonstrate a more critical nature when presented with the opportunity, through more open-ended questions, to convey themselves in their own terms (Williams, 1994). Patient satisfaction research by Bauer, Bohrer, Aichele, Bach and Martin, (2001) found that patients answered consistently in a more critical manner during a face-to-face interview as opposed to a self-reported questionnaire. Questions that may generate richer data on the men’s discharge experience following RP may include: "What information did you receive that was most helpful?", "What information did you receive that was least helpful?", "What information did you receive that should alert you to seek medical attention?", and "What information were you expecting to receive but didn’t?" In addition, questions could be asked about how well their expectations were met related to each aspect of care. For instance, Venkataramanan, Gignac, Mahomed and Davis (2006) evaluated the expectations of recovery with 184 patients recovering from revision knee replacement surgery. The authors assessed outcome expectations by asking participants five questions, three that assessed “global benefits, relief of pain, and ease of difficulties with daily activities” based on a 5-point Likert-type scale where 1= “extremely beneficial” and 5= “not at all beneficial”. Respondents were also asked if they expected to have complications (yes, no, or not sure). Finally, the respondents were asked “Whether they expected to be fully recovered from their surgery in <6 months, 6-12 months, >12 months, or did not expect to recover” (Venkataramanan, et al., p.315). Men in a future full-scale study could be asked direct questions about different aspects of their care, which will act as probes to elicit dissatisfaction with aspects of care (Carr-Hill, 1992). These types of questions would help the researcher focus on the
discrepancy between what was expected by the men from their discharge teaching and what they actually received, which would offer valuable information for improving care.

5.3.2. Symptom Distress Scale

The Symptom Distress Scale was implemented at 48 hours, 10 days, and 30 days post-discharge. A ceiling effect was observed as men predominantly reported limited distress related to appetite, insomnia, pain, bowel functioning, and fatigue. However, responses were observed to have greater degree of variability at 30 days post-discharge than at 48 hours and 10 days post-discharge, especially in relation to the symptoms of insomnia, pain, and fatigue. At 10 days post-discharge, there was virtually no variability in the responses made by the men, however, this scale was only conducted with five of the men, which is not large enough to assess variability. Furthermore, these five men were observed to experience the least amount of symptoms measured by the SDS.

Another rationale as to why there was reduced variability at 10 days post-discharge may be because the men had just had their Foley catheters removed and were not experiencing the full impact of urinary incontinence that they experienced at 30 days post-discharge. This is hypothesized because the men reported a limited number of symptoms at 10 days post-discharge. Therefore, it may not be appropriate to use the SDS in a full-scale study at this time point. At 30 days post-discharge there was increased variability because the men were experiencing a host of problems related to their urinary incontinence. Previous research has shown this to be a common side effect of treatment post-RP and that urinary incontinence disrupts men’s quality of life (Burt et al., 2005; Herr, 1997; McGlynn et al., 2004; Moore & Estey, 1999). Men may experience urinary incontinence post-RP because the urethral sphincter may be damaged during the removal of the prostate gland, which impacts urinary control (Camp-Sorrell, 2005). The variability in
symptoms witnessed at 30 days post-discharge was most visible in the symptoms of insomnia, pain, and fatigue, which may be correlated to their urinary incontinence. At this time point, some of the men expressed experiencing difficulty sleeping because they had to get up during the night to urinate. In addition, the men’s response at 30 days post-discharge to the item “waking up to urinate” on the EPIC Scale showed that 10 of the 15 men found waking up to urinate to be either a “small” to “big “ problem. This finding is consistent with the literature, as three studies have assessed the association between the treatment side effects for prostate cancer and insomnia (Kornblith et al., 1994; Lilleby, Fossa, Waehre & Olsen, 1999; Savard et al., 2005) and suggest that urinary difficulties associated with RP may interfere with sleep. Therefore, it is plausible that the men’s report of waking up to urinate during the night limited their ability to sleep and lead to their insomnia and fatigue. The incidence of pain has also been found to increase the risk of sleep disturbances (Savard & Morin, 2001). Given that pain was another symptom that demonstrated variability at 30 days post-discharge, it can be postulated that the men’s report of pain impacted their ability to sleep.

The lack of variability observed using the SDS may also indicate that this scale is not appropriate in measuring symptoms that are of greatest concern to men following RP. The SDS was originally developed in cancer patients undergoing chemotherapy and radiation with advanced disease (McCorkle & Young, 1978) and may not be sensitive to symptoms related to prostate surgery recovery. In future studies exploring men’s experiences following RP, an outcome measure that focuses on symptoms experienced as a consequence of prostate surgery may be more appropriate as a proxy assessment of quality of life. For instance, the Symptom Recovery Scale is comprised of variables which include tiredness, moving around, eating, drinking, elimination, pain, nausea, and wound care (Young, O’Connell, & McGregor, 2000).
This numerical rating scale, with numbers ranging from 1 to 10 for each symptom category, allows respondents to rate the severity of symptom experienced. Reliability testing of this scale had shown the measure to have moderate reliability, with Cronbach’s alphas of between 0.73 to 0.78 being reported (Young et al.).

5.3.3. Expanded Prostate Cancer Index Composite

The Expanded Prostate Cancer Index Composite (EPIC) Urinary Assessment Scale did demonstrate greater variability compared to the other study instruments. One item pertaining to bleeding with urination was observed to have a ceiling effect because none of the men reported this symptom. The Cronbach’s alpha for this instrument, however, was .458, which is the lowest measure of internal consistency of all the scales used in the pilot study. This may be attributed to the small sample size, which may have impacted the reliability of this measure by generating an underestimated reliability score. Given the different items and concepts, maybe items are not correlated but more of an index of symptoms.

A more sensitive instrument may be appropriate to assess the level of urinary function in men during the 30 days following RP. For instance, the International Prostate Symptom Score Questionnaire (I-PSS), derived from the American Urological Association Symptom Score may be a more sensitive tool to determine men’s level of urinary function. The I-PSS tool is comprised of seven questions concerning urinary symptoms, with one condition-specific quality of life question. Symptoms that are assessed on the I-PSS include: incomplete emptying, frequency of urination, intermittency, urgency, weak stream, and straining. Each question is assigned a severity score ranging from 0 “not at all” to 5 “almost always”. The total score can range 0 (i.e., “asymptomatic”) to 35 (i.e., “very symptomatic”) (McGlynn et al., 2004, p. 480). In addition, one question assesses quality of life as impacted by urinary symptoms and from 0
"delighted" to 6 "terrible". Although the EPIC tool assesses the same urinary symptoms as the I-PSS, the I-PSS appears easier to use, as it is much shorter with only 7 items as opposed to 23 items on the EPIC tool. Furthermore, The I-PSS has the advantage of having one concise question that asks men how the urinary incontinence impacts their quality of life, whereas the EPIC tool does not. It is recommended that the I-PSS tool be considered for any future research that requires assessment of men's level of urinary control. The I-PSS has been used in previous research with men who have undergone a RP. For example McGlynn et al. used the I-PSS to determine the level of urinary incontinence of 106 men following RP. In the McGlynn et al. study, the I-PSS has a Cronbach's alpha of 0.86 and the test-retest reliability of 0.92, which indicates a satisfactory internal consistency (Nunnally, 1978).

5.3.4. Utilization of Health Care Resources

The Utilization of Health Care Resources tool was implemented at 30 days post-discharge to identify the health care resources used by the men during the first month following their RP, as well as the frequency of use, and the reason for use. Variability in responses was achieved as the men identified the use of various health care resources such as: urologist, general practitioner, emergency room, urology unit, walk-in-clinic, and Prostate Resource Centre. This particular tool was found to be an appropriate to identify the utilization of health care resources by this cohort of men during the first month following discharge and is recommended for use in a future full-scale study.

5.3.5. Satisfaction with Post-Discharge Information and Care Scale

The Satisfaction with Post-Discharge Information and Care Scale was implemented at 30 days post-discharge and assessed if the men perceived that they received adequate information during the follow-up telephone intervention to help them to manage their self-care. Similar to
the Satisfaction with Discharge Information and Care Scale, responses to the Satisfaction with Post-Discharge Information and Care Scale had a ceiling effect as the men indicated that they received the information they needed during the telephone intervention to help them manage during their recovery. This tool was created for this study, therefore, comparisons to other research findings is not possible. Although the Cronbach’s alpha was below the recommended value of 0.70, it must be acknowledged that due to the small sample size, the reliability value may have been underestimated. The addition of qualitative questions to uncover more nuanced evaluations of the follow-up telephone intervention may be helpful. As previously suggested, it may be appropriate to measure another construct, such as expectation, instead of satisfaction. As in the Satisfaction with Discharge Information and Care Scale, it would be beneficial to ask questions that focus on the discrepancy between what information was expected from the follow-up telephone call intervention and what they actually received.

5.4. Major Information and Support Needs at 48 Hours Post-Discharge

The findings of this pilot study demonstrated that providing men with information pertaining to self-care, related side effects of treatment, and potential complications following an RP is a priority. This finding supports previous research on the importance of providing appropriate information to men post-RP at the time of discharge and during the early recovery period (Burt et al., 2005; Davison et al., 2004; Hughes et al., 2000; Moore & Estey, 1999; Phillips et al., 2000). In this section, the major information and support needs identified by the men at 48 hours and 10 days post-discharge are discussed. In addition, recommendations for future nursing practice are discussed.

At 48 hours post-discharge, the men in this pilot study wanted information about how to care and manage their Foley catheter. Specifically, the men wanted to know how to relieve pain
at the tip of the penis, properly secure the catheter to the leg to prevent pulling and discomfort, empty the drainage bags, and how the Foley catheter would be removed. A majority of the men in this study also had information needs pertaining to what bladder spasms were and how to manage them. Finally, the men wanted to know what caused leakage around the Foley catheter and if experiencing urine leakage was normal. These findings support those of Davison et al. (2004) who found half of the men in their study identified information about catheter care as being the most important knowledge during the early post-operative period. Recent research by Burt et al. (2005) reported that men post-RP identified the Foley catheter as being the “worst part of the prostatectomy experience” (p. 886). Specifically, the men in Burt et al.’s study felt frustrated with having to manage the “discomforts, including leaking, pain, irritation, burning, bladder spasms, embarrassment and feelings of mortification” (p.886) caused by the Foley catheter. Similarly, the men in this pilot study reported dislike of and discomfort with the Foley catheter, however, they were relieved that it was temporary and for a short period of time. As the experience of having a Foley catheter evokes apprehension and uncertainty for many men, it is essential that they receive follow-up support during the initial recovery period to ensure they are able to manage their Foley catheter care and promote positive outcomes. It is recommended that a follow-up telephone call to this population while they still have their Foley catheters would be an effective intervention to offer valuable information and support.

Half of the men in this pilot study also identified that information pertaining to the care of the surgical incision was important. Since five of the 15 men in this study required further medical follow-up for incision-related problems, perhaps the need for further information pertaining to caring for the surgical incision is warranted. In addition, the findings of this pilot study revealed that the five men who required additional follow-up appointments to see either
their urologist or general practitioners about the healing of their surgical incision or wound infection only received the follow-up telephone call at 48 hours post-discharge and not at 10 days post-discharge. This finding suggests that perhaps discharge teaching related to the care of the surgical incision needs to be elaborated on at discharge and once again after the men have been home for approximately one week. This is supported by findings from Davison et al.'s (2004) study, as a majority of the men in this study (79%) recommended that the information in the teaching booklet “Before and After Your Radical Retropubic Prostatectomy” by Moore and Vandall-Walker (2001) pertaining to incision care could be expanded on. In this pilot study, the nurses on the urology unit used the same teaching booklet to provide discharge teaching to the men. Based on study findings and the results of previous research, it is recommended that the teaching booklet pertaining to care of the surgical incision be reviewed and revised based on the men’s feedback. For instance, the men in this study wanted to know what was considered normal versus abnormal drainage from the surgical incision and what were the signs and symptoms of a wound infection. It is also recommended that a follow-up telephone call after 48 hours post-discharge be conducted to determine if the men are managing the care of their surgical incision and if they require additional information and support.

Another self-care need reported by many of the men in this study was information about pain control. Specifically, the men requested information about how to best mobilize with the Foley catheter to minimize discomfort. In the hospital, the men had electronic beds that helped them to raise and lower the head and foot of the bed, which facilitates mobilization and minimizes discomfort. Once home, these men do not have the electronic bed to assist with getting in and out of bed. These findings are supported by previous research by Burt et al. (2005), who also reported that the men in their study experienced discomfort with movement
related to having the Foley catheter, which impacted the men's activity level. Similar to the men in this pilot study, the men in the Burt et al. study expressed having difficulty turning over in bed and getting out of bed, which caused distress.

Another information needs pertaining to minimizing discomfort that men reported included the length of time they should sit during the immediate post-operative period because sitting for long periods of time placed pressure on the internal incision and caused discomfort. The activity section in the information booklet used by the nursing staff did not provide this information and, therefore, needs to be expanded on. Furthermore, the men in this pilot study were not assessed by the unit physiotherapist during their hospital stay to review techniques regarding how to effectively get up from a low lying position or about how long to sit. Therefore, it was not surprising that the men posed these questions during the follow-up telephone call intervention. It is recommended based on their clinical expertise that the unit physiotherapist assesses each of the men prior to discharge to review mobilization techniques to minimize discomfort and subsequently provide information about appropriate activities that the men could perform during the early recovery period. It is also recommended that the clinical educator in collaboration with the physiotherapist from the urology unit create a pre-discharge education session for men following RP. The education sessions could be provided simultaneously to all men on the unit who had undergone an RP, which would reduce the number of times the content would need to be covered and free up nursing time.

Previous research has examined the impact of providing teaching sessions to patients requiring respiratory teaching (Abley, 1997; Howard, Davies, & Roghmann, 1987) and to help lower cholesterol (Reid, Barnest, & Daly, 2002). No research has been found related to the effectiveness of providing a formalized discharge teaching session to men following RP.
Previous research has shown that a formalized teaching session with a systematic approach is an effective strategy to disseminate information consistently and promote group discussion (Howard et al.). In addition, Reid et al. found that including the partners of patients in the teaching sessions was beneficial in promoting understanding and supporting their involvement. The findings from this pilot study based on the men’s feedback can influence and direct what information should be included in these education sessions.

An important support need that was identified by the majority of the men at 48 hours post-discharge was associated with the waiting period for their pathology results from their physician. Men commented on how it was a “worrysome” time and how it was “anxiety provoking” to have to wait for their pathology results. Although not surprising, this finding further supports that a follow-up telephone call offers information and emotional support to men following RP during a very “anxious” period. Research exploring the experience of waiting for pathology results during the early recovery period following RP does not exist. However, a plethora of research has been conducted that explored the experiences of women waiting for their breast biopsy results (Chappy, 2004). It is well documented that the breast biopsy experience for women evokes feelings of uncertainty and anxiety (Deane & Degner, 1998; Northouse, Tocco, & West, 1997; Woodward & Webb, 2001). Recent research by Chappy demonstrated that the most all-encompassing need for the women was to have their biopsy result as soon as possible.

With respect to men following RP, two previous research studies by O’Rourke and Germino (1998) and Moore and Estey (1999) found that the men in their studies expressed difficulty waiting for test results prior to the diagnosis of prostate cancer being confirmed. One of the men in Moore and Estey’s study expressed frustration in having to “chase” the physician down for the results. One of the men in this pilot study experienced distress as he had not yet
received his pathology result from his physician at 10 days post-discharge and was unsure how to proceed. After discussion during the follow-up telephone call intervention, it was recommended that the patient call the physician’s office to inquire about his pathology result.

Health care professionals need to acknowledge that the post-discharge period is a stressful time for men who have undergone RP, by listening to their concerns and, in doing so, validating the emotions that the men are feeling as they wait to hear about their pathology report (Burt et al., 2005). To prevent this unnecessary distress from occurring, pathology specimens need to be examined and reports provided to patients as soon as possible. Moore and Estey (1999) identified that “on-going” support for men post-RP may improve the early recovery period. This can be accomplished by using interventions, such as a follow-up telephone call, which may alleviate some of the men’s fears, provide emotional support, and be a beneficial intervention during this time. Research visibly indicates that the follow-up telephone call intervention is perceived to be a useful intervention to provide emotional support during the early recovery period following discharge (Davison et al., 2004).

5.5. Major Information and Support Needs at 10 Days Post-Discharge

The self-care information and support needs of the men were found to be different at 10 days post-discharge than at 48 hours. How to successfully manage urinary incontinence was identified as the major information need of the men in this pilot study at this point in time following RP. Specifically, the men wanted information about how to properly perform pelvic floor muscle exercises (i.e., Kegel exercises). Teaching men post-RP to tighten their pelvic floor muscles is a common recommendation to help improve urinary continence (Moore & Dorey, 1999). As all of the men should have been instructed about the benefits of Kegel exercises and how to perform these exercises while in the hospital, it was surprising that one of the men in this
study had never heard of the exercises. The men in Davison et al.’s (2004) study identified that the teaching booklet used to provide discharge information about pelvic floor exercises needed to be expanded, however, the men did not specify in what way. This raises an important question with regards to the timing of information as well as the amount of information that is provided at one time, especially just prior to discharge from hospital. Providing self-care information during the pre-operative stage, as well as during the hospital stay and reinforced during a follow-up telephone call once the Foley catheter has been removed, may help improve men’s retention of bladder retraining information. This recommendation is supported by research conducted by McGlynn et al. (2004), who found that men who received personalized information before and after RP from a health care professional had a greater return of continence post-operative, greater satisfaction, and higher quality of life.

The men in this pilot study also wanted information about ways to minimize the annoyances of urinary incontinence. This included information about what types of incontinent products to purchase, where to purchase such products, and ways to minimize odour associated with urinary incontinence. These results are similar to those reported by Davison et al. (2004), who found men in their study requested a variety of incontinence products at the time of discharge. Providing education about what types of incontinence products are available to these men to help them manage their urinary incontinence, in addition to providing a sample at the time of discharge would be beneficial. In the Davison et al. study, the men were provided with a discharge bag that included a sample of incontinence products, which was identified by the men to be an important item that was provided at discharge. The men in this current study were not provided with a sample of incontinence pads, therefore, it is recommended that a partnership
with an incontinence product supplier in the private sector be developed to provide samples of incontinence pads to this population of men on the urology unit.

The support needs that were identified by a few of the men who received the follow-up telephone call at 10 days focused on providing emotional support as they coped with urinary incontinence. It was apparent from conversations with the men that incontinence was a frustrating and difficult experience. One of the men commented that he was “going to return to see his urologist” if the incontinence did not stop. Furthermore, he shared that he did not realize that the urinary incontinence “was going to be so bad” and if so he “would not have gone through with the operation”. This finding is supported by an earlier study by Moore and Estey (1999), which reported that men were shocked at the extent of urinary incontinence once their Foley catheter was removed. The men during the 10 day post-discharge follow-up telephone call were provided with information about how urinary incontinence was a side effect of treatment and that, with time and by practicing the Kegel exercises, their bladder control would improve. This supports previous findings from Moore and Estey, who found that all of the men in their study required emotional support that their urinary incontinence would improve and that the majority would regain control. Nevertheless, it was evident in this pilot study that dealing with urinary incontinence disrupted some of the men’s lives. One of the men expressed that he “did not want to do anything” because of the incontinence.

Providing information and teaching about how to manage urinary incontinence should begin prior to the RP procedure by a health care professional that is an expert in urinary incontinence. This recommendation is supported by research conducted by McGlynn et al. (2004), who found that providing pre-operative teaching by a team of incontinence experts improved men’s level of urinary control following removal of the Foley catheter. Furthermore,
these men regained total urinary control faster than men who did not receive the pre-operative teaching. In this pilot study, the information booklet used by the nursing staff did not include contact information of health care professionals who specialize in incontinence post-RP, such as an incontinence nurse or physiotherapist. Previous research has found that providing a resource brochure that contains a list of community resources is beneficial to cancer patients during the early recovery period (Langwade, 2000). Davison et al. (2004) provided the men in their study with a community resource brochure with names and contact numbers for agencies to call for “meal delivery services, grocery delivery, homemakers, health services transportation, cancer information and support services, and Internet Web sites” (p.485). However, the men in this study were found not to use the resource brochure during the immediate post-operative period. The reasons why the men did not utilize the resource brochure were not specified by the authors. Perhaps the community resource brochure used in the Davison et al. study could be revised to include contact information of experts available to assist this population with urinary incontinence issues. This could include information about the new Bladder Care Centre at UBC Hospital, which opened in 2005. By revising the community resource brochure, it may be better utilized by this population of men.

5.6. Resources Used Post-Radical Prostatectomy

In this pilot study, the two most commonly used health care resources by the men were urologists and general practitioners. The study findings revealed that five of the men who only received the follow-up telephone call at 48 hours post-discharge required additional follow-up appointments to see either their urologist or general practitioner about the healing of their surgical incision or wound infection. This finding suggests that perhaps discharge teaching related to the care of the surgical incision needs to be elaborated on at discharge and reinforced at
a time later in the recovery period, such as at 10 days post-discharge. This could be accomplished by revising the discharge teaching booklet “Before and After Your Radical Retropubic Prostatectomy”. For instance, some of the men during the 48-hour follow-up telephone call wanted to know what was considered normal versus abnormal drainage from their surgical incision. The teaching booklet does not contain this information. This is supported by findings from Davison et al.'s (2004) study, which showed that a majority of the men (79%) recommended that the information in the teaching booklet pertaining to “incision care could be expanded” on. Since the nurses in the Davison et al. study used the same information booklet to provide discharge teaching to the men as used in this pilot study, it is recommended that revising the section on incision care in the teaching booklet is warranted.

The Utilization of Health Care Resources tool was first developed and used by Davison et al. (2004). The most commonly used resource by the men in their study was general practitioners, followed by urologists. A quarter of the men in that study made emergency room visits for catheter and wound related issues. In addition, 39 men reported that they made a visit to see their general practitioners to submit a discharge summary sheet, which highlighted their hospital stay and post-operative care. The men were provided with the form at discharge to give to their general practitioners the next time they had an appointment but misunderstood that they were required to make an appointment to see their general practitioners in follow-up. This finding is an example of the type of miscommunication that can occur at time of discharge between clinical staff and men. Since conclusion of the Davison et al. study, the nursing staff has been informed of study findings and discussion of what to instruct patients about the discharge summary form was reviewed. In this pilot study, none of the men made an unnecessary visit to see their general practitioners to drop off their discharge summary form. In
addition, only one of the men in this pilot study needed to go to the emergency room related to Foley catheter issues.

5.7. Recommendations for Future Research

The findings from this pilot study provide direction for future nursing research pertaining to the benefits of providing follow-up telephone calls and identifying the information and support needs of men following RP. Suggestions for future nursing research are discussed in this section.

One aim of this pilot study was to determine the feasibility of conducting a large-scale randomized clinical trial of an expanded discharge follow-up intervention following RP. This pilot study was able to highlight the barriers to accessing a population of men following a RP for a trial of a supportive care-intervention in the discharge period. Results indicate that in order to obtain an adequate sample size and expedite sample recruitment, it is recommended that a research assistant be hired to assist with recruiting men from other surgical units within Vancouver Coastal Health Authority. In addition, the inclusion criteria will need to be expanded to include those men receiving care from surgeons who follow a different protocol related to Foley catheter removal. To facilitate efficient recruitment, it is also recommended that study enrolment begin the night prior to discharge. The instruments used in this pilot study also require further revision to ensure they are appropriate and sensitive measures of the outcome variables of interest. Specifically, it is recommended that the Satisfaction with Discharge Information and Care Scale and the Satisfaction with Post-Discharge Information and Care Scale be expanded to include either new items or qualitative questions to ensure that a ceiling effect does not occur. Furthermore, as the SDS was found to be less relevant as the men recovered from their surgery, it is recommended that another quality of life tool be used, such as the Symptom Recovery Scale, that focuses more specifically on the post-surgical period. In addition, as the EPIC was found to
have the lowest measure of internal consistency of all the scales used in the pilot study, it is therefore recommended to either retest this tool with an adequate sample size or select another instrument such as the I-PSS tool, to measure men’s urinary symptoms. Conducting a full-scale study with the recommended changes to study methodology would provide valuable insight about the usefulness of a follow-up telephone intervention with men following RP.

Research that contributes to learning more about the information and support needs of men following RP from different cultural backgrounds is needed. The Lower Mainland of British Columbia has a diverse multicultural population, and as such, research exploring the information and support needs at discharge and during the immediate recovery period of men from different ethnocultural groups is needed to establish generalizability and to determine their unique beliefs and experiences related to RP and recovery. This is supported by research by Lynam et al. (2002), who evaluated patient discharge and transition from hospital to home with patients from diverse ethnical backgrounds. The authors found during the first phase of their knowledge translation study that challenges existed that hindered the discharge process for patients from diverse ethnocultural backgrounds. These challenges included a lack of translated written resources that provided patients pertinent discharge instructions and ineffective use of translator services by nursing staff (Lynam et al.). As there are already time constraints imposed with a reduced length of hospital stay, it becomes increasingly challenging for nurses to provide adequate discharge teaching for patients from diverse ethnocultural populations. Therefore, understanding the information and support needs of men from different ethnocultural backgrounds following RP will help to ensure that the discharge information and process is adjusted to better meet their unique needs and beliefs.
The changes previously recommended for the information booklet “Before and After Your Radical Retropubic Prostatectomy” used to provide discharge teaching to these men will need to be made and evaluated (Moore & Vandall-Walker, 2001). The portion of the information booklet that required revision included the sections on incision care and resuming activities. Having an advisory group consisting of men who had undergone RP provide feedback on the information booklet’s content would ensure that the revisions made met their information needs and were helpful. Conducting a pilot study with 10 to 15 men to evaluate these changes will help further elicit if the modifications made to the information booklet were appropriate.

Qualitative research on the experiences of men post-RP as they wait for their pathology report is required. This pilot study identified that having to wait for their pathology report was an anxiety provoking time for the majority of the men. To date, there is a lack of research that explores the men’s experiences of having to wait for their pathology report or how health care professionals can better offer emotional support during this time period. Furthermore, the need for emotional support during the early recovery period following RP is not well studied (Burt et al., 2005; Moore & Estey, 1999).

Currently, the majority of men are being discharged home following RP on post-operative day three. Recent discussion on the hospital unit were the research was conducted indicates that the length of stay for men following RP will be further reduced to two days following their operation. Furthermore, the development of a clinical pathway to standardize medical and nursing care is currently being developed for the urology population. This standardization of care is occurring across Vancouver Coastal Health Authority and will ensure that the physician post-operative order set, clinical pathway, and discharge teaching will be standardized. As the reduced length in hospital stay will impact the ability of nurses to provide adequate discharge
teaching to these men, it would be beneficial to evaluate the impact of these care changes on the men’s information and support needs during the early recovery period, especially elderly patients with minimal family support.

This pilot study cultivated the idea to develop a formalized teaching session that can be offered to men on the urology unit on a weekly basis. The teaching session will be co-facilitated by the unit educator and physiotherapist. Content for the teaching session will be based on the teaching booklet used “Before and After Your Radical Retropubic Prostatectomy” and from feedback from the men in this pilot study. Once the education session has been developed, it would be beneficial to evaluate the effectiveness of the session and the degree to which it met the men’s expectations.

5.8. Conclusion

In summary, this pilot study provides direction and recommendations for modifications to the study’s methodology prior to conducting a full-scale study in the future. The 15 men in this pilot study were randomly assigned to either receive a follow-up telephone call intervention at 48 hours post-RP using the standard format or to receive an expanded follow-up telephone call intervention at 48 hours or at 10 days post-discharge. Field notes were maintained by the researcher throughout the implementation phase of the pilot study in order to determine barriers associated with accessing a population of men and sampling procedures. The appropriateness of selected study instruments were determined according to whether the tools adequately measured outcome variables of interest. Finally, the men’s information and support needs at 48 hours and 10 days post-discharge were identified.

Results of the data analysis indicate that in order to access a sample of men for a full-scale study, it would be beneficial to hire a research assistant to aid with subject recruitment and
data collection, especially if more than one surgical unit is involved. Furthermore, the inclusion criteria will need to be expanded. Another methodology issue included study instruments that were not sensitive measures of the variables of interest. Therefore, revising study instruments pertaining to satisfaction with information and care, and selecting more appropriate instruments to determine symptom distress and level of urinary function may be worth exploring in future research.

The use of follow-up telephone calls during the immediate post-operative period with men following RP was found to be an effective intervention to identify the information and support needs of these men. The findings of this pilot study revealed that the information and support needs of the men are different at 48 hours post-discharge then at 10 days post-discharge. Specifically, the men at 48 hours required additional information about how to care and manage their Foley catheter and related side effects. Support needs at this time centred on waiting for the pathology report. At 10 days post-discharge, the major information need pertained to managing urinary incontinence and how to perform Kegel exercises. Support needs at this time revolved around managing urinary incontinence.

Since half of the men in study groups 1 and 2 required additional follow-up with a physician related to their surgical incision, it becomes increasingly clear that health care professionals need to incorporate better discharge practices that are guided by research and that are evidence-based. In addition, it suggests that better education and support is needed at discharge and during the early recovery period post-RP. It also speaks to the need for better evaluation of discharge practices and the impact on patient outcomes. This will help to inform and shape nursing practice so that the information and support provided to these men at discharge ultimately meets their needs.
The perceptions of the men in this study pertaining to the usefulness of the follow-up telephone call intervention provides further support for the benefits of this form of follow-up intervention. All of the men were receptive to receiving the follow-up telephone call and valued receiving contact from a health care professional during the immediate post-operative period. Nevertheless, due to the busy nature of today’s health care environment, staff nurses may not be the appropriate health care providers to conduct the follow-up telephone call intervention. Therefore, it is recommended that either the unit clinical educator or a clinical nurse specialist conduct the follow-up intervention to this cohort of men. Another consideration that has been supported by research is the use of peer support (Weber et al., 2004). A follow-up telephone call from someone who has undergone an RP in the past may be beneficial in providing men with emotional and informational support.

Although challenges arise with the use of follow-up telephone calls in the current health care environment, the follow-up telephone call intervention has the potential to offer valuable information and support to patients discharged home post-surgical treatment for cancer, who are responsible for managing their self-care practices. Health care professionals need to continue to evaluate the benefits of providing such a service to discharged cancer patients as the length of hospital stays continue to shorten and patients are confronted with the reality of managing self-care practices at home.
REFERENCES


*Paediatric Nursing*, 18(1), 86-89.


Appendix 3: Socio-Demographic Questionnaire

Date:  
Participant IDN:  
Doctor IDN:  

1. Age at last Birthday:  

2. First language Spoken:  

3. Ethnicity:  

4. Marital Status:  
   ___ Never married  
   ___ Married/Living with partner  
   ___ Divorced  
   ___ Widowed  

5. Residence:  
   What City or Town do you live in:  

6. Education (highest level of school completed):  
   ___ Less than High School Diploma  
   ___ High School Diploma  
   ___ Community College Certificate  
   ___ University Degree  
   ___ Graduate Degree (Graduate-Masters, Ph.D., M.D.)  
   ___ Other  

7. Employment Status:  
   ___ Full-Time  
   ___ Part-Time  
   ___ Retired  
   ___ Not currently employed  
   ___ Other  

8. Total Household Income Over Last Year:  
   ___ $10,000 or less  
   ___ $11,000 to $20,000  
   ___ $21,000 to $30,000  
   ___ $31,000 to $40,000  
   ___ $41,000 to $50,000  
   ___ Greater than $50,000  
   ___ Do not wish to answer
9. Describe any medical illnesses at this time that may impact your recovery at home?

10. What major surgeries have you had?

11. What sources of information have you used to get information about a radical prostatectomy (removal of the prostate)? (Check all that apply).

   ___ None
   ___ Talking to someone who had the surgery
   ___ Friend/Relative
   ___ Urologist
   ___ Radiation Oncologist
   ___ Family Physician
   ___ Nurse in clinic (other than the Prostate Resource Centre)
   ___ Prostate Support Group
   ___ "Before and After a Radical Prostatectomy" booklet
   ___ Internet
   ___ Medical Journal
   ___ Canadian Cancer Society
   ___ Video
   ___ Pamphlets from Doctor's office
   ___ Newspaper
   ___ Prostate Resource Centre
   ___ Other ___________________________________________
Appendix 4: Satisfaction with Discharge Information and Care Scale

Participant IDN: ___________________________ Date: ___________________________

This information is strictly for research purposes. By gathering this information, we hope to better understand the satisfaction with information provided to men who have had a radical prostatectomy prior to discharge.

1. Overall, I was satisfied with the information I received to help me manage at home following surgery. (Check One)
   ___ Strongly Disagree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

2. I know what signs or symptoms that should alert me to seek medical attention after I leave hospital. (Check One)
   ___ Strongly Disagree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

3. I was given all the information I need to help me with recovery. (Check One)
   ___ Strongly Disagree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

4. Overall, I feel ready to manage my self-care at home. (Check One)
   ___ Strongly Disagree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

5. The overall care I received was:
   ___ Poor
   ___ Fair
   ___ Good
   ___ Very Good
   ___ Excellent
Appendix 5: 48 Hour Standard Care Follow-up Telephone Call Form

Participant IDN: ___________________ Telephone Number: ___________________
Date of Telephone Call: _____________ Length of Telephone Call: _____________
If No Answer Recall 1 _______________ Recall 2 _______________________

Hello Mr. ______________________________. How are you doing since your discharge?

Is there any way I can be of assistance to you?

Action taken by nurse (Check all that Apply):

1. ___ No action needed
2. ___ Reinforced discharge instructions
3. ___ Gave reassurance
4. ___ Provide referral to another agency ____________________________
5. ___ Request for additional written information (referred to Prostate Resource Centre
   (604-875-5006)
6. ___ Instructed to all physician (type/s) ___________________________
7. ___ Other? ____________________________
Appendix 6: 48 Hour Expanded Follow-up Telephone Call Form

Participant IDN: ________________ Telephone Number: ________________
Date of Telephone Call: ________________ Length of Telephone Call: ________________
If No Answer Recall 1 ________________ Recall 2 ________________

Hello Mr.________________________. How are you doing since your discharge?

How are you managing the care of your surgical incision?
___Not Well
___Somewhat Well
___Well
___Very Well

Do you need additional information about your surgical incision?

How are you managing with the care of your Foley catheter?
___Not Well
___Somewhat Well
___Well
___Very Well

Do you need additional information about caring for your Foley catheter?

Are you having bladder spasms? Yes___ No___

If yes, how are you managing the bladder spasms?
___Not Well
___Somewhat Well
___Well
___Very Well

Do you need additional information about bladder spasms?
How are you tolerating activity?
___Not Well
___Somewhat Well
___Well
___Very Well

Do you need additional information about resuming activities?

How is your appetite and fluid intake?
___Poor
___Fair
___Good
___Very Good
___Excellent

Do you need additional information about your appetite and fluid intake?

Are you having regular bowel movements? Yes___ No___

Do you need additional information about your bowel movements?

Are you experiencing pain? Yes___ No___

If yes, what are you taking for pain?

Do you need additional information about pain management?
Symptom Distress Scale- Please consider only the last 24 hours.

Appetite
___ I have my normal appetite
___ My appetite is usually, but not always good
___ I don’t really enjoy my food like I used to
___ I have to force myself to eat food
___ I cannot stand the thought of food

Insomnia
___ I sleep as well as I always have
___ I have occasional spells of sleeplessness
___ I frequently have trouble getting to sleep and staying asleep
___ I have difficulty sleeping almost every night
___ It is almost impossible for me to get a decent night’s sleep

Pain (frequency)
___ I almost never have pain
___ I have pain once in a while
___ I frequently have pain several times a week
___ I am usually in some degree of pain
___ I am in some degree of pain constantly

Pain (intensity)
___ When I do have pain, it is very mild
___ When I do have pain, it is mildly distressing
___ The pain I do have is usually fairly intense
___ The pain I have is usually very intense
___ The pain I have is almost unbearable

Bowel
___ I have my normal bowel pattern
___ My bowel pattern occasionally causes me some discomfort
___ I frequently have discomfort from my present bowel pattern
___ I am usually in discomfort because of my present bowel pattern
___ My present bowel pattern has changed drastically from what was normal for me

Fatigue
___ I am usually not tired at all
___ I am occasionally rather tired
___ There are frequently periods when I am quite tired
___ I am usually very tired
___ Most of the time, I feel exhausted
Action taken by nurse (Check all that Apply):

1. ___ No action needed
2. ___ Reinforced discharge instructions
3. ___ Gave reassurance
4. ___ Provide referral to another agency
5. ___ Request for additional written information (referred to Prostate Resource Centre (604-875-5006)
6. ___ Instructed to all physician (type/s)
7. ___ Other?
Appendix 7: 10 Day Expanded Follow-up Telephone Call Form

Participant ID Number: __________________ Telephone Number: __________________
Date of Telephone Call: ___________ Length of Telephone Call: ________________
If No Answer Recall 1 __________________ Recall 2 __________________

Hello Mr. ___________________________. How are you doing since your discharge?

How are you managing care of your surgical incision?
___ Not Well
___ Somewhat Well
___ Well
___ Very Well

Do you need additional information about your surgical incision?

When was your Foley catheter removed? ____________________________

Are you experiencing any leakage since your catheter has been removed?
___ Frequently
___ Sometimes
___ Never

Do you need additional information about urinary incontinence?

Are you doing Kegel exercises?
___ Frequently
___ Sometimes
___ Never

Do you need additional information on how to perform Kegel exercises?
How are you tolerating activity?
___Not Well
___Somewhat Well
___Well
___Very Well

Do you need additional information about resuming usual activity?

How is your appetite and fluid intake?
___Poor
___Fair
___Good
___Very Good
___Excellent

Do you need additional information about nutrition and fluid intake?

Are you having regular bowel movements? Yes___ No___

Do you need additional information about your bowel movements?

Are you experiencing pain? Yes___ No___

If yes, what are you taking for pain?

Do you need additional information about pain management?
Symptom Distress Scale- Please consider only the week.

Appetite
___ I have my normal appetite
___ My appetite is usually, but not always good
___ I don’t really enjoy my food like I used to
___ I have to force myself to eat food
___ I cannot stand the thought of food

Insomnia
___ I sleep as well as I always have
___ I have occasional spells of sleeplessness
___ I frequently have trouble getting to sleep and staying asleep
___ I have difficulty sleeping almost every night
___ It is almost impossible for me to get a decent night’s sleep

Pain (frequency)
___ I almost never have pain
___ I have pain once in a while
___ I frequently have pain several times a week
___ I am usually in some degree of pain
___ I am in some degree of pain constantly

Pain (intensity)
___ When I do have pain, it is very mild
___ When I do have pain, it is mildly distressing
___ The pain I do have is usually fairly intense
___ The pain I have is usually very intense
___ The pain I have is almost unbearable

Bowel
___ I have my normal bowel pattern
___ My bowel pattern occasionally causes me some discomfort
___ I frequently have discomfort from my present bowel pattern
___ I am usually in discomfort because of my present bowel pattern
___ My present bowel pattern has changed drastically from what was normal for me

Fatigue
___ I am usually not tired at all
___ I am occasionally rather tired
___ There are frequently periods when I am quite tired
___ I am usually very tired
___ Most of the time, I feel exhausted
Action taken by nurse (Check all that Apply):

1. ___ No action needed
2. ___ Reinforced discharge instructions
3. ___ Gave reassurance
4. ___ Provide referral to another agency
5. ___ Request for additional written information (referred to Prostate Resource Centre (604-875-5006)
6. ___ Instructed to all physician (type/s)
7. ___ Other?
Appendix 8: 30 Day Post-Discharge Interview

Participant IDN: _________________ Date Completing Form_________________

Symptom Distress Scale- Please consider only the last week.

1. Appetite
   __ I have my normal appetite
   __ My appetite is usually, but not always good
   __ I don’t really enjoy my food like I used to
   __ I have to force myself to eat food
   __ I cannot stand the thought of food

2. Insomnia
   __ I sleep as well as I always have
   __ I have occasional spells of sleeplessness
   __ I frequently have trouble getting to sleep and staying asleep
   __ I have difficulty sleeping almost every night
   __ It is almost impossible for me to get a decent night’s sleep

3. Pain (frequency)
   __ I almost never have pain
   __ I have pain once in a while
   __ I frequently have pain several times a week
   __ I am usually in some degree of pain
   __ I am in some degree of pain constantly

Pain (intensity)
   __ When I do have pain, it is very mild
   __ When I do have pain, it is mildly distressing
   __ The pain I do have is usually fairly intense
   __ The pain I have is usually very intense
   __ The pain I have is almost unbearable

4. Bowel
   __ I have my normal bowel pattern
   __ My bowel pattern occasionally causes me some discomfort
   __ I frequently have discomfort from my present bowel pattern
   __ I am usually in discomfort because of my present bowel pattern
   __ My present bowel pattern has changed drastically from what was normal for me
5. Fatigue
   ___ I am usually not tired at all
   ___ I am occasionally rather tired
   ___ There are frequently periods when I am quite tired
   ___ I am usually very tired
   ___ Most of the time, I feel exhausted

The Expanded Prostate Cancer Index Composite (EPIC) Urinary Assessment

Urinary Function - This section is about urinary habits. Please consider only the last week.

1. Over the past week, how often have you leaked urine? (Check One)
   ___ More than once a day
   ___ About once a day
   ___ More than once a week
   ___ About once a week
   ___ Rarely or never

2. Over the past week, how often have you urinated blood?
   ___ More than once a day
   ___ About once a day
   ___ More than once a week
   ___ About once a week
   ___ Rarely or never

3. Over the past week, how often have you had pain or burning with urination?
   ___ More than once a day
   ___ About once a day
   ___ More than once a week
   ___ About once a week
   ___ Rarely or never

4. Which of the following best describes your urinary control during the last week?
   ___ No urinary control whatsoever
   ___ Frequent dribbling
   ___ Occasional dribbling
   ___ Total control

5. How many pads or adult diapers per day did you usually use to control leakage during the last week?
   ___ None
   ___ 1 pad per day
   ___ 2 pads per day
   ___ 3 or more pads per day
6. How big a problem, if any, has each of the following been for you during the last week?
   (Circle one number on each line)

<table>
<thead>
<tr>
<th>Condition</th>
<th>No Problem</th>
<th>Very Small Problem</th>
<th>Small Problem</th>
<th>Moderate Problem</th>
<th>Big Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dripping or leaking urine</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Pain or burning on urination</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Bleeding with urination</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Weak urine stream or incomplete emptying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Waking up to urinate</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Need to urinate frequently during the day</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. Overall, how big a problem has your urinary function been for you during the last week?
   [ ] No problem
   [ ] Very small problem
   [ ] Small problem
   [ ] Moderate problem
   [ ] Big problem
8. Utilization of Health Care Resources Following Discharge

Please complete the following table indicating which resources you have used over the past month, the number of times used, and the reason the resource was needed.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Place a check if a resource used</th>
<th>Number of times used in last 30 days</th>
<th>Give the reason for using this resource (what week used)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urologist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Doctor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Department</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Community Home Care Nurse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Nurse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephoned Urology Unit T10A at Vancouver General Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate Resource Centre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, Specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Satisfaction with Post-Discharge Information and Care Scale

9. How would you evaluate the usefulness of the telephone call(s) that were made to you by the nurse following your discharge? (Check One)
   ___ Not at all useful
   ___ Somewhat useful
   ___ Very useful

10. What did you find most useful about the follow-up telephone call(s)?

11. Was there anything about the follow-up telephone call(s) that was not helpful?

12. Overall, I was satisfied with the information I received during the follow-up telephone call(s) to help me manage at home following surgery.
   ___ Strongly Disagree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

13. I knew what signs or symptoms that should alert me to seek medical attention after discharge.
   ___ Strongly agree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

14. I was given all the information during the follow-up telephone call(s) that I needed to help me with recovery.
   ___ Strongly Agree
   ___ Disagree
   ___ Neither Agree or Disagree
   ___ Agree
   ___ Strongly Agree

15. The overall care I received was:
   ___ Poor
   ___ Fair
   ___ Good
   ___ Very Good
   ___ Excellent