Patient Participation in Decision-Making Regarding Post-Operative Ambulation: How It Affects Patient Outcomes

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PATIENT PARTICIPATION IN DECISION-MAKING REGARDING POST-OPERATIVE AMBULATION: HOW IT AFFECTS PATIENT OUTCOMES

By

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A THESIS

Submitted to

Grand Valley State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

1998

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ABSTRACT

PATIENT PARTICIPATION IN DECISION-MAKING REGARDING POST-OPERATIVE AMBULATION: HOW IT AFFECTS PATIENT OUTCOMES

By

Martha Ann Ruble

The purpose of this study was to determine the effects of patient participation in decision-making regarding post-operative ambulation on ambulation behaviors, occurrence of post-operative complications, and overall satisfaction for patients undergoing bowel surgery. A convenience sample consisted of 39 subjects, aged 20-80, who underwent bowel surgery at a 300-bed medical center in a midwest metropolitan area.

An active negotiated approach to encourage patient participation in decision-making regarding post-operative ambulation was utilized for subjects in the experimental group (n = 19). It was hypothesized that subjects in the experimental group would ambulate farther and more frequently, would experience fewer post-operative complications, and would have higher levels of satisfaction than subjects in the control group (n = 20).

No significant differences were found between the two groups regarding frequency of ambulation, distance ambulated, or level of satisfaction with care (p > .05). Subjects in the control group did experience a significantly greater number of complications than did subjects in the experimental group (p < .05).
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CHAPTER 1
INTRODUCTION

The right of patients to participate in decisions regarding their own health care has been given increased emphasis within the past several decades. Lay people and health professionals alike have come to regard the patient as an informed active consumer rather than a passive recipient of health care. Patient participation in decision-making is considered an essential part of quality care (Carter & Mowad, 1988; Gustafson, 1991; Lehr & Strosberg, 1991). There is general consensus that patient participation in decision-making contributes to patient satisfaction, adherence to treatment plan, and positive outcomes of care (Lehr & Strosberg, 1991; Meisenheimer, 1991; Naylor, Munro, & Brooten, 1991; Rodin & Janis, 1979).

Patient participation can be significantly hindered or enhanced by the professionals who care for them. Both physician and nurse researchers have developed interventions to increase patient participation in decision-making. Physician researchers have investigated the effects of increasing patient participation in medical treatment decisions with positive results (England & Evans, 1992; Greenfield, Kaplan, & Ware, 1985; Morris & Royle, 1988; Wallston et al., 1991). Despite the fact that various nurse authors have advocated for patient participation in decision-making, nurse researchers have been relatively slow to investigate patient participation in decisions regarding nursing care. Patient participation is widely discussed in such popular concepts as mutual goal setting, self-care, empowerment, nurse-patient collaboration, and active negotiation (Connelly, Keele, Kleinbeck, Schneider, & Cobb, 1993; Gibson, 1991; Kasch, 1986; Malin & Teasdale, 1991; Roberts & Krouse, 1990). However most of the nursing research has focused on nurse practitioners and their involvement with
medical treatment decisions (Chang, Uman, Linn, Ware, & Kane, 1984; Krouse & Roberts, 1989). There is an apparent lack of research regarding specific interventions for facilitating patient decision-making within the realm of nursing practice.

The traditional model of nursing, however altruistic, implies that the patient yields responsibility for bedside care to the nurse. (Gadow, 1989; Gibson, 1991; Greenfield, Kaplan, & Ware, 1985; Kasch, 1986; Malin & Teasdale, 1991). Within this model, the nurse makes decisions according to her judgment about how to serve the patient’s best interests. "In actual practice, nurses tend to plan and implement care based on professional standards and their assessment of patient need. Thus care ... may fail to meet the consumer’s expectations" (Carter & Mowad, 1988, p. 78). However, the growing acceptance of patient involvement in health care decisions is challenging traditional nursing roles. For many patients, it is no longer enough to simply trust nurses to take good care of them. Patients now desire more active involvement in decisions regarding their care (C. B. Blanchard, Labrecque, Ruckdeschel, & E. B. Blanchard, 1988; Carter & Mowad, 1988; Dennis, 1990; Lemke, 1987; Meisenheimer, 1991). Although some nurses may be threatened by this emphasis on patient decision-making, it is consistent with King’s (1981) theory of goal attainment. King’s theory emphasizes mutual goal setting, whereby nurse and patient agree not only on which goals to achieve, but also on the means to achieve them.

Patient participation in nursing care decisions has a potentially significant role in the attainment of positive patient outcomes. Based upon a sound body of knowledge, nurses plan and implement patient care to improve physiological outcomes for individual patients. Another, equally vital goal for nursing is patient satisfaction (Bond & Thomas, 1991; Chang et al., 1984; Larson & Ferketich, 1993; LaMonica et al., 1986;
Naylor, Munro, & Brooten, 1991; Pulliam, 1991). Current literature recognizes that allowing patients to participate in health care decisions may facilitate both of these goals. To facilitate patient decision-making regarding nursing care, specific interventions must be formulated and tested in the clinical setting.

The concept of patient participation in decision-making was applied to post-operative ambulation after abdominal (specifically, bowel) surgery. The importance of ambulation for recovery from abdominal surgery has been well documented (Johnson, 1984; Johnson, Fuller, Endress, & Rice, 1978; Johnson, Rice, Fuller, & Endress, 1978; Leithauser & Bergo, 1941; Risser, 1980). Ambulation has been shown to enhance the healing process and to maintain and improve the function of almost every system in the body, especially the respiratory, circulatory, digestive, urinary, and musculo-skeletal systems. Potential complications which can be prevented by early and frequent ambulation include pneumonia, atelectasis, pulmonary embolism, thrombophlebitis, paralytic ileus, gastric distension, constipation, urinary retention, urinary tract infection, and muscle weakness (Brown, Kneisl, & Obst, 1986; Desrosier, 1986; Kozier, Erb, & Bufalino, 1989; Monahan, Drake, & Neighbors, 1994).

The impetus for patient ambulation has traditionally come from the nurse, who decides the time and frequency for patients to walk post-operatively. An alternate approach is to allow the post-operative patient to decide when, how often, and how far to ambulate. This approach is consistent with the concept of patient participation in decision-making regarding nursing care. Allowing the patient to participate in planning care builds self-esteem, personal control, and satisfaction, and these positive feelings enhance and reinforce the plan of care (Kasch, 1986; Roberts & Krouse, 1990). A self-designed plan for ambulation also allows for a better fit with personal schedule
and preferences, thereby making the plan more attainable. In summary, a self-designed plan for ambulation may result in increased patient satisfaction and improved ambulation behavior, which in turn will improve post-operative outcomes and minimize complications.

**Purpose**

The purpose of this study was to determine the effect of patient participation in decision-making regarding post-operative ambulation on overall patient satisfaction, ambulation behaviors, and the occurrence of post-operative complications for patients undergoing bowel surgery.
CHAPTER 2
CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Conceptual Framework

Imogene King (1981) has presented a systems framework for nursing which provided a relevant conceptual approach to the present study. King describes individuals as open personal systems interacting with their environment. The environment consists of interpersonal and social systems. According to King, a state of continuous dynamic interaction occurs within and between all three systems: personal, interpersonal, and social. King views the interaction between a nurse and a patient within the context of the interpersonal system.

King's (1981) theory of goal attainment, which looks at the process and outcomes of interactions between nurses and patients, provided a logical and useful framework for the present study. King states that nursing is "a process of human interaction between nurse and (patient) whereby each perceives the other in the situation and, through communication, they set goals, explore means, and agree on means to achieve goals" (1981, p. 144). The theory of goal attainment holds that two individuals (a nurse and a patient) interact with each other based upon their own perceptions, knowledge, needs, goals, and past experiences. King proposes that if perceptual accuracy is present in an interaction between a nurse and a patient, transactions will occur. Transactions are viewed as the end result of successful interactions, whereby nurse and patient effectively communicate, set goals, and achieve these goals. According to King, true communication occurs during transactions because the nurse and the patient exchange values, share a frame of reference, and are able to identify commonalities between them. Transactions between a nurse and a patient result in the successful attainment
of goals. King also maintains that role expectations and role performance of nurses and patients must be congruent in order for transactions to occur. According to King's theory of goal attainment, the patient who views himself/herself as an active participant in care will expect the nurse to facilitate his/her active participation in decision-making.

King clearly values patients' participation in their nursing care (Fawcett, 1989). King's theory assumes that patients possess both a desire and a capability to participate in decision-making regarding their nursing care. King proposes that nursing is most effective when nurses and patients can negotiate a mutually acceptable agreement about which goals to pursue, and are allowed to pursue these goals to the satisfaction of both parties. King (1986) hypothesizes that "goal attainment will be greater in patients who participate in mutual goal setting than in patients who do not participate" (p. 206). King also proposes that if goals are attained, effective nursing care and patient satisfaction will both occur. King's theory and propositions provided a basis for the hypothesized relationship between patient participation in decision-making and positive physiological outcomes and patient satisfaction for this study.

The present study compared patients who participated in decision-making regarding post-operative ambulation with those who did not participate. It was assumed that patient satisfaction and positive physiological outcomes were goals that were shared by both nurses and patients. According to King's (1986) theory, goal attainment will have occurred more frequently and to a greater degree for patients who helped design their ambulation plans than for those whose ambulation plans were designed by the nurse alone.
Review of Literature

The literature review includes four studies done by physicians (England & Evans, 1992; Greenfield, Kaplan, & Ware, 1985; Morris & Royle, 1988; Wallston et al., 1991;) and three studies done by nurse researchers (Change, Uman, Linn, Ware, & Kane, 1984, 1985; Hanucharumkui & Vinya-nguag, 1991; Krouse & Roberts, 1989;). All except one of these studies looked at patient participation in decisions regarding medical treatment. Generally it has been found that when patients participate in decisions regarding medical treatments, they will experience improved physiological outcomes, increased satisfaction, or both when compared to a control group for whom decisions are made by the health care provider. Only one study was found that looked at patient participation in decisions regarding nursing care, and this study was used as a model for the present study.

Physician researchers have studied patient participation in medical decision-making with some favorable results. Patient participation in medical decision-making has been linked with positive physiological and emotional outcomes of medical treatment. Patient satisfaction has not been consistently addressed in these studies, however. Greenfield, Kaplan, and Ware (1985) developed an intervention to increase patient participation in medical decision-making. The intervention consisted of a 20-minute session during which specially trained clinical assistants helped patients to read their medical record and coached patients to ask questions and negotiate medical decisions with their physicians. Immediately after this 20-minute session, the patients proceeded directly to a regularly scheduled office visit with their physicians. Interestingly, the patients' physicians were blind to the study, and so the patients themselves provided the impetus for negotiation in decision-making. The intervention was administered to a
group of patients with peptic ulcer disease and these patients were compared to a similar group not receiving the intervention. Patients in the experimental group experienced fewer functional limitations than did those in the control group. However, levels of patient satisfaction were the same for both groups.

Morris and Royle (1988) found that breast cancer patients who were allowed to choose whether to have a mastectomy or a wide excision plus radiotherapy experienced less anxiety and depression than patients who were not allowed to choose. Wallston et al. (1991) studied cancer patients who were offered a choice of antiemetic treatment and compared them with a similar group of patients who were not offered such choice. The researchers differentiated among patients with low, moderate, and high levels of desire for control. The findings indicated that some of the patients who were offered a choice of antiemetics experienced less nausea and emotional distress than patients who were not offered a choice. However, only those patients with moderate levels of desire for control enjoyed these benefits.

England and Evans (1992) investigated the effect of patient decision-making in treatment for cardio-vascular disease. All patients in the study were invited to choose from among seven different behaviors for treatment, i.e., reducing sodium intake, reducing fat intake, dieting for weight loss, exercising, giving up smoking, reducing alcohol intake, and stress management. Patients who elected to choose a certain behavior were compared with those who did not choose. Although the study was quite complex and included many dependent and independent variables, findings indicated that patients who reported a high degree of control over decision-making tended to have lower blood pressures than those who reported a low degree of control. In summary, the above studies have linked patient participation in decision-making with
positive physiological and emotional outcomes, but have not consistently demonstrated a relationship between patient participation and patient satisfaction.

Nurse researchers have begun to study patient participation in decision-making and its potential effect on both physiological outcomes and patient satisfaction. However, of the three studies found in this literature review, two of these focused on nurse practitioners and patients involved in medical treatment decisions. Chang, Uman, Linn, Ware, and Kane (1984, 1985) used a quasi-experimental design to examine selected components of nurse practitioners' care and to determine the effects of each of these components on patient adherence to the medical regimen and patient satisfaction. Orem's (1981) theory of self-care provided the conceptual framework for this study. According to the authors, patient decision-making is a prerequisite for self-care.

The study used a convenience sample of 268 elderly women attending one of 26 senior citizen nutrition sites in southwest California. Subjects viewed a simulated interaction between a patient and a nurse practitioner. Each subject was then asked to indicate how she would respond as if she were the patient in the interaction. Independent variables (components of care) included high and low levels of technical quality in care, of psycho-social care, and of patient participation in planning care. Patient characteristics such as age, marital status, religion, education, pre-existing satisfaction, social network, and general health were also measured to determine their covariate effects on the dependent variables. Dependent variables included patient's intent to adhere and patient satisfaction in a role play situation. After covariate effects had been eliminated, none of the independent variables were found to be significantly related to patients' intent to adhere. However, all three independent variables were
positively correlated with patient satisfaction, and patient participation showed the most significant correlation (Chang et al., 1985).

This study has several limitations. First, the study was limited to elderly females at nutrition sites in a major metropolitan area, and so results can be generalized only to similar subjects at similar sites. Generalization is also limited by the lack of a control group. Secondly, as the authors acknowledge, lack of correlation between patient participation in decision-making and patient intent to adhere may have been due to cohort effect. Elderly women in this cohort may not be accustomed to participating in their health care decisions. In addition, the intervention in this study occurred in a simulated situation. Subjects may respond to actual situations quite differently. Finally, this study did not account for subjects' previous experiences with situations that were similar to the simulated situation and so might have affected the results.

Krouse and Roberts (1989) used an actively negotiated process of decision-making to enhance patient participation in care. Like Chang et al. (1985) these authors based their research on Orem's (1980) theory of self-care. In this experimental study, three different interactive styles of nurse practitioners were compared to determine their effects on patient degrees of power and control, agreement with treatment, and satisfaction. Simulated situations were also utilized for this study. A convenience sample of 84 undergraduate nursing students were randomly assigned to one of three simulated provider-patient interactions. The simulation was accomplished through role-play. The interactions varied as to degree of patient participation in decision-making regarding medical treatment for a sore throat. Two of the interactions, traditional and partial negotiation, limited the amount of patient participation in decision-making. The third type of interaction, an actively negotiated approach,
allowed for full patient participation and determination of treatment plan. Subjects who participated in the actively negotiated process of decision-making experienced significantly stronger feelings of control than did subjects who participated in the other two types of interactions (Krouse & Roberts). The authors also attempted to determine the effect of the three types of interactions on patient satisfaction and agreement with treatment plan, but the measurement tool demonstrated a poor internal consistency for both of these factors. The measurement tool included an additional factor, confusion with care, which was not identified in the hypothesis.

This study was limited by the use of a poor measurement tool, which may have negated the effects of increased patient participation on satisfaction and agreement with plan. In addition, as in the previous study, the intervention occurred in a simulated situation. Finally, the sample was limited to female volunteer nursing students, and results can only be generalized to similar subjects. Nursing students, who have more knowledge of medical treatment and communication skills, may not be representative of a typical patient population.

Only one study was found which looked at patient participation in decision-making regarding nursing care. Hanucharumkui and Vinya-nguag (1991) tested the effect of patients’ participation in decision-making regarding nursing care on post-operative recovery from pyelolithotomy and nephrolithotomy. An experimental design was used, with a convenience sample of 40 adult patients recruited from two surgical wards of a hospital in Chaing Mai, Thailand. The authors based their study on both Orem’s (1980) and King’s (1981) theories. The latter theory was used to design a nursing interaction to promote patient participation in planning post-operative care.
During the experimental interaction, the nurse investigator and the patient mutually agreed on types and frequency of self-care actions to be performed on each post-operative day. Patients in the control group interacted with one of the nurse investigators to discuss general topics related to the surgery, but no planning or decision-making was attempted during these interactions. The researchers tested the effects of the experimental intervention on various dependent variables, which included: degree of pain sensation and distress reported each post-operative day, amount of analgesics used each day post-operatively, daily frequency of ambulation, total number of post-operative complications, length of post-operative hospitalization, and patient satisfaction.

To achieve equivalent groups, subjects were stratified by age and then randomly assigned to either the experimental or the control group. The subjects ranged in age between 22 and 60, and most of them were married (92.5%). Sixty-five percent of subjects were male and 35% were female. The mean amount of education for the group was 4.95 years. The group consisted of agricultural workers (45%), employees (45%), merchants (2.5%), and civil officials (7.5%). Homogeneity of groups was established by comparing demographic data. No statistically significant differences were found between the experimental and control group in terms of age, years of education, or annual income.

Results obtained by Hanucharumkui and Vinya-nguag (1991) indicated a significant effect of the experimental intervention on all the dependent variables. Statistical data that were measured by these authors included frequency of ambulation on the first two post-operative days, total number of post-operative complications, and scores obtained on the patient satisfaction scale.
Ambulation was measured during the first three post-operative days for experimental and control groups, and a t-test was performed to compare the groups on each of the three days. Mean frequency of ambulation on day one for the experimental group was 2.20 (SD = 0.83) and 0.15 for the control group (SD = 0.48) for a t-value of 9.49 (df = 38, p < .001). Mean frequency of ambulation on day two for the experimental group was 5.35 (SD = 1.92) and 2.05 for the control group (SD = 1.19) for a t-value of 6.51 (df = 38, p < .001).

The number and type of post-operative complications were recorded for both control and experimental groups. The mean number of complications for the experimental group (M = 0.20, SD = 0.41) was significantly lower than the number for the control group (M = 0.85, SD = 0.67) for a t-value of -3.70 (df = 38, p < .001). Types of complications recorded included abdominal distension, nausea and vomiting, urinary tract infection, and fever. Patients in the experimental group also reported significantly higher levels of satisfaction (M = 164.75, SD = 9.52) than did patients in the control group (M = 147.25, SD = 11.45) for a t-test value of 5.25 (df = 38, p < .001) (Hanucharumkui & Vinya-nguag, 1991).

Hanucharumkui and Vinya-nguag (1991) also found that patients in the experimental group experienced less pain and distress, used fewer analgesics, and stayed fewer days in the hospital post-operatively.

These rather impressive results are subject to several study limitations. First, the sample size (N = 40) limits the external validity of the study. Secondly, no attempt was made to control for subjects' general health status before their surgeries, which would be a significant factor in post-operative recovery. A third limitation is that frequency of ambulation alone does not fully measure the sufficiency of ambulation behaviors.
Distance of ambulation is also important in order to determine the amount of ambulation that is accomplished. For example, one patient may ambulate six or seven times each day but only to and from the bathroom each time. In contrast, a second patient who ambulates only three or four times each day but walks twice the length of the hallway each time has accomplished more than the first individual.

A final limitation to the study by Hanucharumkui and Vinya-nguag (1991) arises from the hypothesis itself, which was extremely complex with its multiple dependent variables. One cannot assume that the independent variable, patient participation in decision-making, would affect each dependent variable individually. The dependent variables may have affected each other. For example, shorter hospitalizations for the experimental group may have been related to lack of post-operative complications rather than being a direct result of the experimental intervention. Finally, the sample was limited to patients in Thailand undergoing the surgeries described, and results can be generalized only to similar subjects. Given the limitations of this study, its conclusions must remain quite tentative.

In summary, a review of current literature has provided weak to moderate support for the proposed relationship between patient participation in decision-making regarding nursing care and positive patient outcomes. Studies that have found a significant effect of patient participation on adherence or positive physiological outcomes have usually failed to find a concomitant effect on patient satisfaction, and vice versa. An additional problem with this area of nursing research has been its reliance on the use of simulated situations (with the exception of Hanucharumkui and Vinya-nguag's 1991 study). Further testing of methods to enhance patient decision-making in actual clinical situations is necessary. Finally, most of the current nursing research regarding patient
participation in decision-making has failed to address issues unique to nursing. This line of inquiry must focus on nursing care as opposed to medical intervention.

The present study, although modeled after the study done by Hanucharumkui and Vinya-nguag (1991), included some modifications. The study done by Hanucharumkui and Vinya-nguag looked at individuals undergoing pyelolithotomy and nephrolithotomy, while the present study looked at individuals undergoing bowel surgery. The present study examined fewer dependent variables than did Hanucharumkui and Vinya-nguag. The present study measured both frequency and distance of ambulation for all subjects. The present study utilized a more formalized intervention than that used by Hanucharumkui and Vinya-nguag: an active negotiated approach to facilitate patient participation in decision-making. This intervention (described in more detail below) was first proposed by Lazare and Eisenthal (1979), and further developed by Roberts and Krouse (1990).

An additional aspect, patient coaching, was added to the intervention. Patients were coached to actively negotiate their preferred plan of ambulation with nursing staff. Patient coaching was used in the study by Greenfield, Kaplan, and Ware (1985) with favorable results, as described above. Finally, in the interest of clarity and precision, the conceptual framework for the present study was confined to King's (1981) theory.
Hypotheses

The following hypotheses were proposed:

1. Patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will ambulate farther than patients in a control group.

2. Patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will ambulate more frequently than patients in a control group.

3. Patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will experience fewer complications than patients in a control group.

4. Patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will report higher levels of satisfaction than patients in a control group.

Definition of Terms

Active negotiated approach: An interactive process in which the patient and provider together decide on the prescribed treatment or plan of care. This process emphasizes mutual understanding, feedback, and consensus in decision-making (Lazare & Eisenthal, 1988; Roberts & Krouse, 1988). This will be discussed in detail in Chapter 3.

Satisfaction: Patients’ positive feelings regarding their health care experience (LaMonica & Oberst, 1986).

Post-operative complications: unexpected physiological complications or events which occur at any time during the first two post-operative days.
CHAPTER 3

METHOD

Research Design

This study employed an intervention, post-test only design. This design provided for testing of the research problem in actual clinical situations, and findings are potentially more applicable to nursing practice than those obtained with use of simulated situations. The current design therefore expanded upon previous nursing research that has relied upon the use of simulated situations. The disadvantage of this design is a loss of control over extraneous variables that are unforeseen or unavoidable in the clinical setting.

A total of 39 subjects (adult patients undergoing elective bowel surgery) were assigned to either the control group or the experimental group according to the order in which they presented to the hospital. The first 20 subjects who met criteria for the study were assigned to the control group, and the last 19 subjects meeting study criteria were assigned to the experimental group. A random assignment technique was considered but rejected because of the threat of a contamination effect. If random assignment were utilized, there was a high probability that subjects from both groups would present concurrently to the same nursing unit. If this occurred, the intervention being utilized could conceivably affect subjects in both groups. Also, if the experimental group were studied first, the nurses who had participated in the intervention could have inadvertently utilized it on subjects in the control group. Therefore, the control group was studied first and independently from the experimental group.
The intervention, an active negotiated approach to decision-making and patient coaching, was administered to the experimental group only. The intervention was administered during the pre-operative phase of the subjects' surgical experience, which is the normal time for all patients to receive pre-operative teaching. Both experimental and control groups received pre-operative teaching according to standard nursing protocol within the institution. Dependent variables measured for both groups included frequency of ambulation, distance of ambulation, number of post-operative complications, and level of patient satisfaction. Frequency and distance of ambulation were measured during the first two post-operative days. The total number of complications that occurred during the first two post-operative days was recorded. Data on patient satisfaction was collected only once by way of a post-test on the morning of the third post-operative day.

There were a number of extraneous factors that needed to be considered in the study design. The study was limited to individuals undergoing bowel surgery to eliminate the most obvious selection threat regarding type of abdominal surgery. Abdominal surgeries vary in terms of location of incision, degree of manipulation of internal organs, and potential complications. This variation could significantly affect the dependent variables, particularly number of post-operative complications and amount and frequency of ambulation.

The presence of a pre-existing major multi-system disease could also have a significant effect on a patient's recovery from surgery and so represented a selection threat to this study. Besides the obvious fact that pre-existing morbidity puts an individual at risk for post-operative complications, it also may interfere with the individual's ability to ambulate effectively. Therefore, criteria for subjects excluded
individuals who had any major multi-system disease, including morbid obesity. Subjects for this study should be in the best possible health to maximize the effects of post-operative ambulation, and to eliminate those factors that might otherwise interfere with full recovery from surgery. Individuals with documented mental or emotional illness were also eliminated from the study. The presence of mental or emotional illness may interfere with the individual’s ability to participate in decision-making.

Even though criteria for subjects excluded those with a major multi-system disease, it was anticipated that eligible subjects may present with minor mobility limitations due to mild congenital conditions or to the effects of previous injuries, illnesses, or surgeries. Any limitation in mobility could have affected the individual’s ability to ambulate. For this reason, data were also collected regarding each subject’s current mobility level. Prior to surgery, the researcher asked each subject, “Do you have any physical condition that normally prevents you from getting up out of bed or walking independently?” If the subject answered “yes,” the researcher asked for a description of the condition. Subjects were classified as having either full mobility or limited mobility. Since the sample size was relatively small and it was anticipated that limitations in mobility would be few, such limitations were recorded in a list format for both intervention and comparison groups. These data were examined to help determine equality of the two groups with respect to subjects’ mobility level. In fact, all subjects enrolled in this study reported full mobility except for one individual. This individual reported limited movement of the left arm due to an old fracture and indicated that this did not significantly affect his ability to walk. Subjects who had major limitations in mobility or significant activity intolerance pre-operatively were not included in this study.
Extraneous factors also included demographic characteristics such as gender, age, years of education, and ethnic group. In addition, it was anticipated that subjects' previous experiences with surgery or other hospitalizations may affect their ability or desire to participate in decisions regarding their care. As discussed above, random assignment to groups was not utilized to control for these factors. Data on demographic variables and subjects' previous experiences with surgery or other hospitalizations were collected and statistically analyzed to examine equality of the two groups with respect to these variables.

A significant factor that may have influenced the results of this study was the individual's desired level of participation in decision-making regarding his or her nursing care. Research studies have found that a significant number of patients prefer to participate in decisions about their care (C. G. Blanchard, Labrecque, Ruckdeschel, & E. B. Blanchard, 1988; Biley, 1992; Cassileth et al., 1980; Dennis, 1990; Haug & Levin, 1981). The research proceeded on the assumption that all subjects were generally motivated to participate in decision-making, however, data regarding this factor were collected. The nurse researcher asked each subject to evaluate his/her desired level of participation in decision-making. This was accomplished by providing subjects with a list of three descriptive phrases and asking them to choose the one phrase that described them most closely. The three descriptive phrases were: (a) I desire to be as actively involved as possible in making decisions regarding my nursing care, (b) I'm not really sure about how involved I want to be in making decisions regarding my nursing care, and (c) I want the nurse to make most or all of the decisions regarding my care. These data were included in the analysis of covariance to remove the effects of subjects' desired level of participation in decision-making.
Another factor that may have influenced the dependent variables is the particular system of nursing care delivery, which is a function of the institution where the nursing care occurs. Even within one institution, nursing care may differ between units, shifts, and individual nurses. This factor was extremely difficult to control, however, a certain amount of control was achieved by selecting patients from one institution only.

Sample and Setting

The source of subjects for this study was a 300-bed medical center in a midwest metropolitan area. Thirty-nine subjects were selected based on the following criteria: age 20-80, without major multi-system disease (including morbid obesity) or documented mental or emotional illness, who presented for bowel surgery in this institution. Subjects were all able to read and speak English. The original plan called for enrolling 40 subjects (20 in each group) but unexpected delays and time constraints were encountered and a decision was made to end the data collection process after a total of 39 subjects were completed.

The type of sampling method used was a non-random, accidental convenience sample. The main disadvantage with this sampling method was that it did not ensure that subjects would be truly representative of the target population. However, this is the only sampling method possible for this type of study because criteria for inclusion in the study were beyond the researcher’s ability to create or control.

Two subjects who were initially enrolled in the study had to be dropped. One of these was an individual who experienced a respiratory arrest due to narcotic medication being administered for post-operative pain. Although the individual was stabilized and the rest of his post-operative course was uneventful, he was dropped from the study because he was in the intensive care unit and on bedrest for about 18 hours. The
other individual was dropped from the study, at her own request, the morning after her surgery.

Subjects ranged in age between 30 and 80 years (M = 56.74, SD = 12.60). There were 18 male and 21 females enrolled in this study. Only one subject reported a limitation in mobility (as described above). All subjects were Caucasian except for one subject in the comparison group who was African-American.

Instruments

A variety of instruments were used. A demographic data sheet was used to record data regarding the extraneous variables as well as the number and types of post-operative complications. Ambulation worksheets and records were used to record and tabulate distance and frequency of ambulation. Patient satisfaction was measured by having each subject fill out a LaMonica-Oberst Patient Satisfaction Scale (LaMonica, Oberst, Madea, & Wolf, 1986).

Demographic Data Sheets. Each subject’s age, gender, type of surgery, years of education, ethnic group, and previous experience with surgery or other hospitalizations were recorded on a demographic data sheet (see Appendix A). This data sheet was also used to record each subject’s mobility level and desired level of participation in decisions regarding nursing care. The number and types of post-operative complications were also recorded on the demographic data sheet.

Ambulation. Distance and frequency of ambulation were recorded by the nurse researcher on the ambulation record (see Appendix B). During each post-operative visit, the nurse researcher asked each subject to recall how many times he or she had ambulated since the last visit, and how far he or she had gone during each ambulation episode. Distance (in feet) of ambulation was recorded for each ambulation episode.
during the two post-operative days. The total number of ambulation episodes for each post-operative day was tallied on the ambulation record as well.

Post-operative complications. The number of post-operative complications was determined by assessing each subject's status and reviewing the individual's chart during the first two post-operative days. Each type of complication experienced by each subject was counted as one complication. The researcher recorded the number and types of complications on the demographic data sheet. A list of common post-operative complications (see Figure 1) was formulated after a review of several nursing texts (Brown, Kneisl, & Obst, 1986; Kozier, Erb, & Bufalino, 1989; Monahan, Drake, & Neighbors, 1994). This list is not exhaustive, rather, it served as a cue to guide the researcher as to potential complications that could be anticipated. Although no unforeseen or unusual complications occurred for any of the subjects, the plan was to record and count any that did occur.

Patient satisfaction. Patient satisfaction was measured for all subjects using the LaMonica-Oberst Patient Satisfaction Scale (LOPSS) (LaMonica, Oberst, Madea, & Wolf, 1986). A copy of this scale could not be appended as specified by the author.

---

Common post-operative complications:

<table>
<thead>
<tr>
<th>Pneumonia</th>
<th>Gastric distension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atelectasis</td>
<td>Nausea and vomiting</td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td>Urinary retention</td>
</tr>
<tr>
<td>Thrombophlebitis</td>
<td>Urinary tract infection</td>
</tr>
<tr>
<td>Paralytic ileus</td>
<td>Fever</td>
</tr>
</tbody>
</table>

Fig. 1. List of potential post-operative complications.
under terms for permission for use¹ (See Appendix E). This scale contains 41 items that are grouped under one of three factors or subscales: dissatisfaction (17 items), interpersonal support (13 items) and good impression (11 items). Each item describes a nursing behavior and is accompanied by a 7-point Likert-type scale ranging from strongly agree (7) to strongly disagree (1). Seventeen of the items are negatively worded. Subjects were asked to consider each item and to rate how much they agreed or disagreed that the item was representative of their actual experience or opinion regarding nursing care during all phases of their inpatient stay. This instrument was given to subjects to fill out at the end of their second post-operative day. The scale was scored by reversing all negative items and summing all responses to obtain a possible total score ranging from 41 (low satisfaction) to 287 (high satisfaction) (LaMonica et al., 1986).

Content validity for the LOPSS was established during its initial development by having a panel of experts rate each item for its appropriateness as a nursing behavior related to patient satisfaction (LaMonica et al., 1986). Panelists generated new items as needed and eliminated those deemed inappropriate. The scale was further revised after being used in a small pilot study. In addition, a multi-matrix method was utilized to determine construct validity of the LOPSS. This was performed by correlating the instrument with subscores on a scale known as the Multiple Affect Adjective Check List (MAACL) (Zuckerman & Lubin, 1965). The LOPSS was predicted to be negatively correlated with certain subscores on the MAACL which reflected negative mood states.

¹To obtain a copy of this scale, a written request must be made to the author.

(anxiety, depression, and hostility). The correlation coefficients, although not extremely high, were all significant ($p = .001$), and so moderate support for construct validity was established for the LOPSS (LaMonica et al., 1986).

Reliability for the LOPSS has been fairly well established. LaMonica et al. (1986) obtained reliability coefficients for internal consistency of .92 ($N = 100$) and .95 ($N = 533$) in two separate studies. In addition, alpha coefficients for each subscale were obtained in these two studies. In both studies alpha coefficients for each subscale were greater than .80, which suggests that the LOPSS is a unidimensional index. No significant relationships were found between LOPSS scores and various demographic or health status variables measured by the authors (LaMonica et al.). In the study done by Hanucharumkui & Vinya-nguag (1991), the reliability coefficient was .89 ($N = 40$). The present study found a reliability coefficient of .98 ($N = 39$) for the LOPSS.

Procedure

Approval for use with human subjects was obtained from the Human Research Review Committee at Grand Valley State University. Following this, the proposal was submitted to the Internal Review Board of the medical center in which the data collection occurred, and approval was obtained from this board before proceeding with the study.

Prospective subjects were identified by consulting the surgery schedule generated by the surgical department of the hospital. Individuals who met eligibility requirements were approached during the pre-operative phase of their surgical experience. Prospective subjects were approached at the patient’s bedside by the researcher. The research study was explained at this time and written consent (see Appendix C) was
obtained from those individuals who agreed to participate. Subjects were told that the intervention and data collection would occur in private, with only the researcher and the subject present. Each subject was assigned an ID number, and this number (rather than the subject's name) was attached to any written documentation or data collection device. After data collection and analysis were completed, all possible information linking ID numbers to particular subjects was destroyed. Subjects were fully informed of all possible risks associated with participation in the study. Subjects were also told that their involvement in the study was voluntary and that they could withdraw from the study at any time by verbally informing the researcher, their nurse, or their physician.

After obtaining consent, the researcher briefly interviewed each subject to collect demographic data as well as data regarding the individual's mobility level, previous experiences with surgeries or other hospitalizations, and desired level of participation in decision-making. Directly after the interview, data regarding these variables were confirmed or clarified as needed by reviewing each subject's medical chart.

The intervention used was an active negotiated approach to encourage patient participation in decision-making regarding their post-operative plan of ambulation. Roberts and Krouse's (1988) Active Negotiation Model for Shared Decision-Making was used. This model was originally created for use by nurse practitioners providing primary care. For this study it was used at the staff nurse level in an acute care setting. The model represents a shift "from the traditional professionally-dominated interaction to a shared one, in which the patient has more comparison over decision-making" (Roberts & Krouse, 1988, p. 50).

The intervention is presented in Appendix D, and compared in parallel fashion to standard nursing intervention used by staff nurses to teach post-operative ambulation.
As can be seen, the standard nursing approach to pre-operative teaching has only two phases. Although the standard nursing approach does inquire about the patient's baseline knowledge about surgery, it does not solicit the patient's concerns or anxieties. The standard approach does not adapt to the patient's perceptions or concerns, rather it proceeds in the same fashion for all pre-operative patients. The standard approach does not allow for any consensus building or decision-making by the patient, rather, it assumes that the patient can and should comply with the physician's or the nurse's recommendations regarding post-operative ambulation.

In contrast, the negotiated approach begins with the patient's perceptions and concerns and proceeds following the patient's lead. The negotiated approach supplies more detailed explanation and rationale regarding the merits of post-operative ambulation so the patient is in a better position to make an informed decision. Various options to the ambulation plan are presented in the negotiated approach, and the patient's opinion is sought about which option is preferable. Roberts and Krouse (1988) describe the active negotiated approach as "person-centered" rather than "position-centered." A person-centered interaction allows for flexibility and adaptation to the specific needs and values of the patient. In contrast, a position-centered interaction maintains control and decision-making within the hands of the nurse, and inhibits collaboration between nurse and patient (Roberts & Krouse).

The active negotiated approach was used by the researcher to interact with each subject in the experimental group during the pre-operative period. A plan for ambulation was tentatively established by the subject and the researcher. After a consensus regarding the ambulation plan was reached, subjects in the experimental group were coached to negotiate this plan with the nurses who would care for them...
post-operatively. Subjects were instructed to initiate conversation with the nurses regarding their preferred plan for ambulation. Subjects were encouraged to be assertive in their requests to ambulate, especially if the nurse was not implementing or facilitating the patient's preferred plan. If subjects seemed hesitant or unsure of how to negotiate with nursing staff, the researcher allowed them to role-play the negotiation process and provided them with suggested scripts to use with the nurses.

The researcher also interacted with subjects in the control group during the pre-operative period, but the researcher kept the conversation focused on general topics such as the surgical procedure and the individual's schedule for the day. Subjects in both groups received standard pre-operative teaching from a member of the nursing staff.

The researcher visited all subjects twice daily during their first two post-operative days, and once more on the morning of the third post-operative day. A consistent time frame for these visits was set up and maintained throughout the entire study. The researcher visited all subjects between 7:30 and 8:30 AM and between 4:30 and 5:30 PM on the first two days, and between 7:30 and 8:30 AM on the third day. The first post-operative day was the day after the surgery was performed. For subjects in the experimental group, the researcher reviewed the ambulation plan that was established during the pre-operative period. The researcher validated each subject's preference for ambulation for that day. The researcher again coached each subject in the experimental group to actively negotiate with the nurses regarding his or her preference for ambulation. The researcher interacted with control group subjects in a general way during the post-operative visits by asking them how they were doing and when they expected to be discharged.
Ambulation worksheets were filled out by the nurse researcher for all subjects in the study, for the first two post-operative days only. The researcher asked each subject to recall the number of times ambulated and distance each time since the researcher’s previous visit. Since the data collection process was retroactive, ambulation data regarding the evening of the second post-operative day was collected on the morning of the third post-operative day. Although more data could have been obtained by recording ambulation behavior during the third post-operative day as well, it was anticipated that a significant number of subjects would be discharged before or during the third day. Therefore, to keep data collection procedures and results consistent, only the first two post-operative days were used.

The nurse researcher counted all complications that occurred within the first two post-operative days for each subject, and this number was recorded on the subject’s demographic data sheet. As outlined above, this was done by assessing each subject and reviewing the individual’s chart directly with each post-operative visit.

All subjects were given the LaMonica-Oberst Patient Satisfaction Scale on the afternoon of their second post-operative day. The nurse researcher distributed the scale to each subject at this time, explained how to fill it out, and told each subject that the scale would be collected the next morning. The researcher left the scale with each subject over night and collected the scale after it was completed, on the morning of the third post-operative day.
CHAPTER 4

RESULTS

The purpose of this study was to determine if increasing patient participation in decision-making regarding nursing care would increase the frequency and distance of post-operative ambulation, decrease the number of post-operative complications and result in higher levels of patient satisfaction with nursing care. An intervention was designed to increase patient participation in decision-making regarding post-operative ambulation. The intervention was introduced to an experimental group of patients undergoing bowel surgery. The experimental group was then compared to a control group with regard to the dependent variables.

Comparison of Groups

Demographic characteristics of both groups are presented in Tables 1 and 2. Forty-five percent (n = 9) of the control group subjects were male, and 55% (n = 11) were female. The experimental group was 47.4% male (n = 9) and 52.6% female (n = 10). The mean age was 56.3 (SD = 14.31) for the control group and 57.21 (SD = 10.91) for the experimental group. Mean years of education was 14.15 (SD = 2.64) for the control group and 14.32 (SD = 2.98) for the experimental group. There were no statistically significant differences found among demographic characteristics between the two groups (p > .05).

Subjects' previous number of surgeries and hospitalizations for reasons other than surgery are summarized in Table 3. Subjects in the control group had a mean number of 3.05 (SD = 1.99) surgeries previous to admission, while subjects in the experimental group had a mean number of 2.11 (SD = 1.37) previous surgeries. The difference between groups regarding number of previous surgeries was not statistically significant.
Table 1

Comparison of Groups by Gender (N = 39)

<table>
<thead>
<tr>
<th>Group</th>
<th>Control (n = 20)</th>
<th></th>
<th>Experimental (n = 19)</th>
<th></th>
<th>Total (N = 39)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>45</td>
<td>9</td>
<td>47.4</td>
<td>18</td>
<td>46.2</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>55</td>
<td>10</td>
<td>52.6</td>
<td>21</td>
<td>53.8</td>
</tr>
</tbody>
</table>

$X^2 = 0.02; p = .88$

Table 2

Comparison of Groups by Age and Years of Education

<table>
<thead>
<tr>
<th>Group</th>
<th>Control (n = 20)</th>
<th></th>
<th>Experimental (n = 19)</th>
<th></th>
<th></th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>t</td>
<td>df</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>56.30</td>
<td>14.31</td>
<td>57.21</td>
<td>10.91</td>
<td>0.22</td>
<td>37</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Education (years)</td>
<td>14.15</td>
<td>2.64</td>
<td>14.32</td>
<td>2.98</td>
<td>0.18</td>
<td>37</td>
<td>.86</td>
<td></td>
</tr>
</tbody>
</table>
The mean number of previous hospitalizations for reasons other than surgery was 0.8 (SD = 0.83) for the control group and 0.32 (SD = 0.82) for the experimental group. This difference was also not found to be statistically significant (t = 1.83, df = 37, p > .05).

Table 3
Comparison of Groups According to Number of Previous Surgeries and Hospitalizations (N = 39)

<table>
<thead>
<tr>
<th>Group</th>
<th>Control (n = 20)</th>
<th>Experimental (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Previous surgeries</td>
<td>3.05</td>
<td>1.99</td>
</tr>
<tr>
<td>Previous hospitalizations</td>
<td>0.80</td>
<td>0.83</td>
</tr>
</tbody>
</table>

A summary of types and classifications of bowel surgeries done at the time of this study is shown in Table 4. Because of the low frequency of some surgery types, prior to statistical analysis all surgeries were classified into one of two categories: bowel surgery with formation of an ostomy (bowel with ostomy) and bowel surgery without formation of an ostomy (bowel without ostomy). A significant difference between the two groups was found regarding this variable (see Table 4). Eight subjects (40%) in the control group had bowel surgery with ostomy, while the remaining 12 (60%) had
Table 4

Types of Bowel Surgeries and Classification

<table>
<thead>
<tr>
<th>Type of surgery by classification</th>
<th>Control (n = 20)</th>
<th>Intervention (n = 19)</th>
<th>Total (N = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Bowel with ostomy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowel resection with ostomy</td>
<td>6</td>
<td>30.0</td>
<td>1</td>
</tr>
<tr>
<td>Jejunal pouch</td>
<td>2</td>
<td>10.0</td>
<td>0</td>
</tr>
<tr>
<td>Bowel without ostomy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowel resection without ostomy</td>
<td>6</td>
<td>30.0</td>
<td>15</td>
</tr>
<tr>
<td>Nissan fundiplication</td>
<td>1</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>Exploratory laparotomy</td>
<td>1</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>Ostomy take-down</td>
<td>2</td>
<td>10.0</td>
<td>1</td>
</tr>
<tr>
<td>Bowel resection and closure of ostomy</td>
<td>2</td>
<td>10.0</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. Prior to statistical analysis, all surgeries were collapsed into one of two categories: bowel with ostomy and bowel without ostomy.

X² with Yates correction = 4.81; p = .03
bowel surgery without an ostomy. In comparison, only one subject (5.3%) in the experimental group had bowel surgery with an ostomy, while the remaining 18 subjects (94.7%) had bowel surgery without an ostomy. This was found to be statistically significant ($X^2$ with Yates correction = 4.81, $p < .05$).

Subjects reported varying levels of desired participation in decisions regarding their nursing care (see Table 5). Of the control group subjects, 13 (65%) expressed a desire for active participation, three (15%) indicated uncertainty about level of participation, three (15%) indicated uncertainty about level of participation, three (15%) indicated uncertainty about level of participation.

Table 5

Comparison of Groups According to Desired Level of Participation in Decision-making (N = 39)

<table>
<thead>
<tr>
<th>Group</th>
<th>Control (n = 20)</th>
<th>Experimental (n = 19)</th>
<th>Total (N = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active as possible</td>
<td>13  65</td>
<td>15  78.9</td>
<td>28  71.8</td>
</tr>
<tr>
<td>Not sure</td>
<td>3   15</td>
<td>2   10.5</td>
<td>5   12.8</td>
</tr>
<tr>
<td>Nurse make all/most decisions</td>
<td>4   20</td>
<td>2   10.5</td>
<td>6   15.4</td>
</tr>
</tbody>
</table>

Note. Prior to statistical analysis, the two groups “not sure” and “nurse make all/most decisions” were collapsed into one group.

$X^2$ with Yates correction = 0.37, $p = .54$
and four (20%) expressed a desire for low participation. Fifteen subjects (78.9%) in the experimental group expressed a desire for active participation, while two of them (10.5%) indicated uncertainty, and two (10.5%) expressed a desire for low participation. Because of the small sample size, two of the categories of desired level of participation, uncertain and low, were collapsed into one category. This made the decision-making variable a dichotomous (two level) variable. As shown in Table 5, there was no statistical difference found between the two groups for desired level of participation in decision-making ($X^2$ with Yates correction = 0.37, $p > .05$).

**Hypothesis Testing**

Four t-tests were performed to examine each of the four hypotheses. Results are summarized in Table 6. Based on t-test results, only the third hypothesis was supported by data analysis.

The first hypothesis was that patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will ambulate farther than patients in a control group. The first hypothesis was not supported by data analysis. As shown in Table 6, subjects in the control group ambulated a mean total distance of 3894 feet (SD = 7966) while the mean total distance ambulated by subjects in the experimental group was 3001 feet (SD = 4822). This was not found to be statistically significant ($t = 0.42, df = 37, p > .05$). An additional t-test (see Table 7) found no significant relationship between the dependent variable total distance of ambulation and the proposed covariate desired level of participation in decision-making ($t = 1.21, df = 10.27, p > .05$). Therefore, since there was no need to remove the effect of this proposed covariate on distance of ambulation, analysis of covariance was not performed for the first hypothesis.
### Table 6

**Comparison of Two Groups in Regards to Distance and Frequency of Ambulation, Number of Complications, and Patient Satisfaction (N = 39)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control (n = 20)</th>
<th>Experimental (n = 19)</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance of ambulation</td>
<td>3894.50</td>
<td>3001.05</td>
<td>0.42</td>
<td>37</td>
<td>.68</td>
</tr>
<tr>
<td>Frequency of ambulation</td>
<td>5.90</td>
<td>5.89</td>
<td>0.01</td>
<td>37</td>
<td>.99</td>
</tr>
<tr>
<td>Number of complications</td>
<td>0.35</td>
<td>0</td>
<td>3.20</td>
<td>19</td>
<td>.005</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>232.85</td>
<td>253.74</td>
<td>1.37</td>
<td>37</td>
<td>.18</td>
</tr>
</tbody>
</table>

The second hypothesis was that patients undergoing bowel surgery who are encouraged to participate in decision-making regarding post-operative ambulation will ambulate more frequently than patients in a control group. This hypothesis was also not supported by statistical analysis. As shown in Table 6, mean frequency of ambulation episodes was 5.90 (SD = 2.85) for the control group and 5.89 (SD = 1.76) for the experimental group. There was no significant difference found between the groups for mean frequency of ambulation (t = 0.01, df = 37, p > .05). An additional t-test (see Table 7) found no significant relationship between the dependent variable frequency of ambulation and the proposed covariate desired level of participation in
decision-making \( (t = 1.08, \text{df} = 37, p > .05) \). Therefore there was no need to remove
the effect of desired level of participation in decision-making on frequency of
ambulation.

Table 7

**Relationship between Desired Level of Participation in Decision-making and Distance Ambulated, Frequency of Ambulation, and Satisfaction with Care**

<table>
<thead>
<tr>
<th>Desired Level of Participation in Decision-making</th>
<th>Active ((n = 28))</th>
<th>Not active ((n = 11))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M ( \text{SD} )</td>
<td>M ( \text{SD} )</td>
</tr>
<tr>
<td>Distance ambulated (in feet)</td>
<td>2253 2146</td>
<td>6529 11767</td>
</tr>
<tr>
<td>Frequency of ambulation</td>
<td>5.64 2.98</td>
<td>6.55 2.95</td>
</tr>
<tr>
<td>Satisfaction with care</td>
<td>235 53.54</td>
<td>263 20.37</td>
</tr>
</tbody>
</table>

The third hypothesis was that patients undergoing bowel surgery who are
encouraged to participate in decision-making regarding post-operative ambulation will
experience fewer complications than patients in a control group. This hypothesis was
supported by statistical analysis. The mean number of complications for subjects in the
control group was 0.35 (\(SD = 0.49\)). None of the subjects in the experimental group
experienced any complications. As shown in Table 6, t-test results indicate that the two
groups were significantly different with respect to number of post-operative
complications (t = 3.20, df = 19, p = .005).

Further analyses were done to determine whether the difference in number of
complications could be explained by covariate effects. It was postulated that if subjects
had multiple previous surgeries this would increase the risk of post-operative
complications. However, when number of previous surgeries was treated as a
dichotomous variable (1 = 0-2 previous surgeries, 2 = 3-8 previous surgeries), no
significant relationship was found between number of previous surgeries and number of
post-operative complications (X² with Yates correction = 0.37, p = > .05). Therefore,
there was no need to remove the proposed covariate effect of number of previous
surgeries on number of complications.

The fourth hypothesis was that patients undergoing bowel surgery who are
encouraged to participate in decision-making regarding post-operative ambulation will
report higher levels of satisfaction than patients in the control group. Although the
experimental group had a higher mean satisfaction score (M = 253.74, SD = 31.43)
than that of the control group (M = 232.85, SD = 58.78), this was not statistically
significant (t = 1.37, df = 37, p > .05) (see Table 6). The fourth hypothesis was not
supported by statistical analysis.

Other Findings of Interest

There was one item in the satisfaction scale that specifically referred to
decision-making regarding nursing care. Item #36 states: “The nurse fails to consider
my opinions and preferences regarding my plan of care” (LaMonica et al., 1986, p. 4).
As shown in Table 8, a Mann-Whitney U test was done to compare individuals’
responses to this particular statement between groups, and although the experimental
group had a higher mean rank at 22.6 than the control group at 17.48, this difference
was not found to be significant (U = 139.5, Z = -1.49, p > .05).

Table 8

Comparison of Two Groups in Regards to Item #36 on LOPSS

<table>
<thead>
<tr>
<th>Group</th>
<th>Control (n = 20)</th>
<th>Experimental (n = 39)</th>
<th>U</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean rank</td>
<td>17.48</td>
<td>22.66</td>
<td>139.5</td>
<td>1.49</td>
<td>.14</td>
</tr>
</tbody>
</table>

A t-test (see Table 7) was performed to determine whether there was a significant
relationship between desired level of participation in decision-making (tested as a
dichotomous variable as described above) and level of satisfaction with nursing care.
A significant relationship between these two variables was found (t = 2.35, df = 37,
p = .024). Subjects who reported an active desired level of participation in
decision-making were less satisfied with their care than were subjects who reported an
uncertain or non-active desired level of participation in decision-making. This was an
unexpected finding, yet interesting and worth noting. Implications of this finding are
discussed below.

In summary, the results of statistical analysis did not support the first, second or
fourth hypothesis presented in this study. Although the third hypothesis was supported,
the clinical significance of this is doubtful. Rationales for this are discussed below.
CHAPTER 5
DISCUSSION AND IMPLICATIONS

Discussion

The purpose of this study was to determine the effect of patient participation in decision-making regarding post-operative ambulation on distance and frequency of ambulation, number of post-operative complications, and overall patient satisfaction. King's (1986) theory of mutual goal attainment provided the conceptual framework for this study. An intervention was developed and implemented for the purpose of increasing patients' participation in decision-making regarding post-operative ambulation. The experimental group was not significantly different from the control group with regard to any of the variables tested except for number of complications.

The results of this study are quite perplexing. No significant differences were found between the groups with respect to frequency of ambulation or distance ambulated, and yet subjects in the control group had significantly more complications. The intervention utilized in this study was designed to have a direct effect on ambulation behaviors rather than on number of complications. The number of complications was proposed to be a secondary effect of differences in ambulation behaviors. Therefore, since there was no difference in ambulation behaviors between the two groups, a higher complication rate for subjects in the control group is most likely attributed to factors other than the intervention that was utilized in this study.

One factor that may explain this difference is that subjects in the control group tended to have more surgeries and more hospitalizations prior to admission than did subjects in the experimental group, even though this difference was not statistically significant. Subjects in the control group were also significantly different in regard to
types of surgeries performed. Subjects in the control group may have been more at risk for complications because they had more surgeries involving the creation of an ostomy than did subjects in the experimental group. This difference may have contributed to the higher number of complications experienced by the control group. It is highly unlikely that the intervention itself had any effect on the difference in number of complications between the groups.

Small sample size may also have been a factor in the lack of support for the hypotheses. The sample size may have been too small to allow for significant differences in outcomes to be manifested. The number of patients experiencing complications was also very small. A small sample is less representative of the target population and more prone to error (Polit & Hungler, 1991).

The intervention utilized for this study did not have a significant effect on post-operative ambulation behaviors. One explanation for this may be that there are a great variety and complexity of factors that determine how much and how far individuals will ambulate post-operatively. Ambulation behaviors may have been influenced by the type of surgery that subjects had. Subjects in the control group had more surgeries that involved the creation of an ostomy than did subjects in the experimental group. The individual with an ostomy has experienced an alteration in bowel function, and may be more motivated to ambulate in order to confirm that the altered bowel is capable of normal function. These individuals have also received specialized teaching by an entero-stomal specialist, who may emphasize the importance of ambulation to attain and maintain normal functioning of the ostomy.

There may be other factors not considered in this study that have a significant impact on post-operative ambulation behaviors. For example, ambulation behaviors
may be influenced by how much pain the individual experiences post-operatively, how physically active an individual is ordinarily, how an individual copes with stress, or how much an individual actually believes that ambulation will enhance his/her recovery from surgery.

Another possible explanation for the lack of impact the intervention had on ambulation behaviors may be the manner in which the intervention was implemented. There was a lack in both quality and quantity of time available for the researcher to implement the intervention. The intervention was subject to numerous interruptions and time constraints. Subjects were admitted to the pre-operative unit of the hospital approximately two hours before their surgery was scheduled. During this pre-operative period, various activities were performed by nursing staff, including such things as starting an IV, administering enemas, and administering medications. In addition, physicians or house staff would often visit subjects pre-operatively, there might be some additional testing to be completed (e.g., blood tests or X-rays), or the operating room might call and ask for subjects early if surgeries were running ahead of schedule for that day. These factors had a notable impact on the implementation of the intervention. It was difficult, if not impossible to perform the intervention consistently and completely for each subject. Ideally, this intervention should be accomplished in a relaxed atmosphere that allows for plenty of time and is free from interruptions. For the majority of subjects in the experimental group, the intervention was implemented in an atmosphere that was less than ideal.

Finally, the intervention failed to have a significant impact on patient satisfaction. Patient satisfaction is a multidimensional phenomenon (LaMonica et al., 1986). The tool that was used to measure patient satisfaction reflects this multi-dimensional
phenomenon in that it is comprised of three subscales: dissatisfaction, interpersonal support, and good impression. The intervention was designed specifically to impact only one aspect of the patient's experience, namely, participation with decision-making regarding nursing care. Most of the statements in the satisfaction scale had little or nothing to do with involvement in decision-making. It is possible that factors other than the intervention influenced the subjects' level of satisfaction with nursing care. The lack of impact on patient satisfaction may also be explained by the lack of quantity and quality of time available for implementation of the intervention, as described above.

One final point worth noting is that the effectiveness of the intervention may have been minimized by the effects of general anesthesia on the subjects, especially on the first day after surgery. Although an ambulation plan was established before surgery, subjects often experienced grogginess and pain which may have affected their ability to recall that plan, as well as their ability to initiate conversations with their nurse about it.

An additional finding of interest was the subjects' response to item #36 on the LOPSS. There was no significant difference found between the two groups regarding the degree to which subjects felt that the nurse considered their opinions and preferences regarding their plan of care. This seems to indicate that the intervention itself did not have a significant impact on the factor it was designed to impact, namely, level of participation in decision-making regarding nursing care. The intervention was based on a thorough examination of both theory and previous research. Although some modifications regarding the manner in which the intervention was implemented may be needed, the basic approach warrants further testing under more favorable and controlled conditions, as discussed below in the recommendations.
Finally, there was a significant relationship found between level of satisfaction and desired level of participation in decision-making regarding nursing care. Subjects who reported a non-active or uncertain desired level of participation in decision-making were more satisfied with their nursing care than were subjects who reported an active desired level of participation. This finding seems to indicate that patients who desire more input into their care may be frustrated in their attempts to influence decision-making. It may be that standard nursing practice maintains a certain level of authority for nurses at the expense of patients' participation and control. For patients with a low level of desire for participation in decision-making, this lack of participation and control would not decrease level of satisfaction. However, when a patient has a high level of desire for participation in decision-making, he/she will feel frustrated by lack of participation and control and will therefore have lower levels of satisfaction with care.

This additional finding supports King's (1986) theory. King maintains that role expectations and role performances of nurses and patients must be congruent in order for transactions to occur. According to King's theory of goal attainment, the patient who views himself/herself as active participant in care will expect the nurse to facilitate his/her active participation in decision-making. Conversely then, if the nurse does not facilitate the patient's participation in decision-making, the patient's level of satisfaction will be adversely affected.

**Limitations**

The most significant threat to the internal validity of this study was the absence of any pre-testing. Because of this, initial equivalence of the two groups could not be established.
The small sample size (N = 39) also represents a weakness in the sampling plan. With a small sample size, there was a greater possibility that the population being studied would be heterogeneous on key variables. Lack of random assignment presented another potential weakness in the study because the groups may not be comparable. Equality of the groups with respect to certain characteristics was examined as part of the data analysis procedure. In fact, as discussed above, the two groups differed significantly regarding the types of surgeries they had during this study.

Some of the data analysis procedures utilized in this study required non-parametric testing because of a lack of homogeneity of variance within groups related to certain variables, e.g. number of complications and type of surgery performed. This represents a study limitation due to the fact that non-parametric testing is less powerful than parametric testing (Polit & Hungler, 1991).

One of the strongest threats to external validity was that the accessible population may not have been truly representative of the target population. The accessible population was comprised of individuals who live in a fairly conservative midwest metropolitan area, and this population may have been more homogenous than the target population. The target population included all adult surgical patients who presented for bowel surgery in urban area hospitals. The study done by Hanucharurnkui and Vinya-nguag (1991) was done in Thailand, and so the population in the “model” study may not resemble the present population to any great extent.

Another threat to external validity was the Hawthorne effect. Although subjects were not aware of the specific factors being studied, the knowledge that they were being observed may have altered their behavior and produced misleading results. Subjects may have also altered their behavior simply because of the presence and
attention of the experimenter, regardless of what was actually done. This was controlled for by having the experimenter interact with subjects in the control group in a very general way; for example, by engaging them in conversation and expressing interest in the subjects without giving any specific information or teaching.

A final threat to external validity was experimenter bias. The same individual who introduced the intervention also collected the data. Although the data were largely quantitative, there was still the possibility that the experimenter may have introduced some bias in favor of the desired results.

Another possible limitation to this study is the fact that the subjects were asked to report their own ambulation behaviors to the researcher. Subjects may have ambulated more or less simply because they were being asked to report those behaviors. The ideal situation would have been for the researcher or the nursing staff to record ambulation behaviors without the patient being aware of this. Obviously the researcher could not be constantly present to record ambulation behaviors. A plan to have nursing staff record ambulation behaviors was originally developed but was rejected during the approval process. The policy at the institution where the research occurred restricted nurses from performing data collection for any outside research project.

An final limitation to this study was the lack of availability of subjects meeting study criteria. The number of subjects meeting criteria for this study was less than anticipated, and data collection took much longer than expected. The data collection phase was expected to be accomplished within seven or eight months, but because of the lack of available subjects it took a full year to enroll 39 subjects and to complete the data collection process. Because of the longer data collection time, there may have
been some historical effects that influenced this study. Although the researcher was not aware of any major changes during the data collection process, there may have been subtle changes in the health care setting, such as nursing staff turnover or other factors affecting nursing practice. A decision was made to end the data collection process after a full year because of time constraints for this project and the increasing risk of historical effect. Waiting an indefinite amount of time for a final subject to present did not seem warranted and so the study was ended at this time.

**Implications and Recommendations**

Although the results of this study did not support the hypothesis, certain findings do have implications for nursing practice. The difficulties encountered in implementing the intervention exemplify the decreasing amount of time available for nurses to prepare individuals for surgery. This time squeeze may be influencing many other unknown outcomes for individuals undergoing surgery. This should be a tremendous concern for nurses as managed care and other reimbursement changes dictate how much time is available to implement interventions for individuals pre-operatively. As nurses are compelled to work more quickly and efficiently, certain less technical interventions such as pre-operative teaching may be rushed or neglected. This study suggests, unfortunately, that pre-operative teaching may be decreasing in priority at the expense of tasks and procedures.

The finding regarding the relationship between desired level of participation in decision-making and satisfaction with care has clinical implications for nurses as they consider how they deliver care to patients and how much they allow patients to participate in decision-making. Nurses need to assess patients' desired level of participation in decision-making and to adjust patient care based upon this information.
A patient who expresses an active desired level of participation in decision-making should be afforded opportunities to do so, not only to increase the patient's level of satisfaction, but also to enhance the effectiveness of nursing care that the patient receives.

Some changes in research design are suggested for additional studies of this nature. The intervention could be done by visiting individuals at home rather than during the short pre-operative period that they spend in the hospital. This would allow ample time for the intervention and any discussion or questions that individuals might have regarding planning for post-operative ambulation. This approach would also minimize interruptions during the implementation of the intervention.

The satisfaction scale that was utilized in this study may not have been the most appropriate tool to measure satisfaction with care related to patient decision-making. The author is not aware of any satisfaction scale currently available that would be a more reliable tool for purposes of this study or related studies. A scale that measures patient satisfaction as it relates to patient decision-making would be ideal for future studies such as this.

Another suggested modification would be to have nurses record ambulation behaviors instead of asking subjects to report their own. This would eliminate the possible impact of subjects' self-reports on their own ambulation behaviors.

Finally, the nurses who care for the subjects should be taught the intervention and encouraged to utilize it for subjects in the intervention group. The involvement of staff nurses was not considered in the design of the present study in order to maintain consistency and control over the intervention. There would also be no way of ensuring that all nurses would willingly and effectively participate in the intervention. Despite
these factors, however, additional studies of this nature should be designed so that nurses do participate in the intervention. The intervention may be more effective if at least some nurses are appropriately participating in it, thereby increasing the likelihood that each subject's preferred plan for ambulation is implemented.

The lack of findings to support the hypothesis may also be indicative of the great complexity of factors that affect post-operative ambulation and patient satisfaction. Further research is needed to establish which factors do have significant impact on post-operative ambulation and patient satisfaction, and how nursing practice can influence these factors.

Further research is also recommended to examine the relationship between desired level of participation in decision-making and patient satisfaction. Qualitative studies are needed to determine specific aspects of nursing practice that facilitate or discourage patient participation in decision-making, particularly for those individuals who desire active participation.

Finally, research is needed to examine possible outcomes of a decrease in both quantity and quality of time available to prepare individuals for surgery. Such decreases have occurred primarily for financial reasons. However, there may be significant physiological, psychological, or emotional outcomes that would be of vital concern to nursing. In addition, these outcomes may affect the individual's length of stay post-operatively, thereby reducing or negating any savings in cost that were gained pre-operatively.

Summary

Current conditions in health care compel nurses to continuously explore specific interventions to increase patient participation in decision-making. There is evidence in
the literature that increasing patient participation in decision-making will positively affect patient outcomes (Chang, Uman, Linn, Ware, & Kane, 1984; England & Evans, 1992; Greenfield, Kaplan & Ware, 1985; Hanucharumkui & Vinya-nguag, 1991; Krouse & Roberts, 1989; Morris & Royle, 1988; Wallston et al., 1991). In addition, the current emphasis on patient autonomy and self-determination is unprecedented in the history of health care. Finally, financial constraints continue to have increasing impact on the delivery of care which requires patients to take more responsibility for decision-making regarding their own health care. Many patients have both the desire and need to be more autonomous, and nurses are in a unique position to facilitate and expand this autonomy.
Appendix A
Demographic Data Sheet

Subject ID # _______________

1. Gender (circle): 1) M 2) F

2. Type of surgery: ___________________

3. Age: ______ (in years)

4. Years of education (circle):
   None  00
   Elementary  01  02  03  04  05  06  07  08
   High school  09  10  11  12
   College  13  14  15  16
   Graduate school  17  18  19+

5) Other (specify) ______

6. Previous surgeries performed in the hospital:
   Type of surgeries done (circle and number): 1) abdominal___ 2) thoracic___
   3) head/neck___ 4) back___ 5) extremities___ 6) reproductive organ 7) breast___
   8) rectal___

7. Previous hospitalizations other than for surgery (number): _____

8. Mobility: 1) Full 2) Limited Describe limitation: ________________________________

9. Desired level of participation in decision-making regarding nursing care:
   1) _____ I desire to be as actively involved as possible in making decisions regarding my nursing care.
   2) _____ I'm not really sure about how involved I want to be in making decisions regarding my nursing care.
   3) _____ I want the nurse to make most or all of the decisions regarding my care.

10. Number of complications (first two post-operative days): ___
    Specify type of complication(s): _____________________________________________
Appendix B
Ambulation Record

ID#________

A. Distance of ambulation

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Time</th>
<th>Ambulation Episode</th>
<th>Distance (in feet)</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 2</th>
<th>Time</th>
<th>Ambulation Episode</th>
<th>Distance (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>#9</td>
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</tr>
</tbody>
</table>

B. Frequency of ambulation:

Day 1________
Day 2________
Total________
Appendix C

Research Study Consent Form

I understand that this a study about the responses that people have to nursing care and other activities both before and after abdominal surgery; and that knowledge gained from this study may help to improve such nursing care and activities.

I also understand that:

1) Participation in this study will involve one 30 minute conversation with the nurse researcher before my surgery, and two 5 - 10 minute conversations with this same researcher on the first and second day after my surgery. These conversations may include: answering a few general questions about myself or my past medical/surgical history, and a discussion about my recovery from surgery.

2) Participation in this study will also involve filling out a questionnaire on the second day after surgery that will take about 20 minutes and will deal with specific things about my nursing care that I did or did not experience.

3) I have been selected for participation in this study because I am having abdominal surgery in this institution.

4) I may become tired or bored due to the conversations with the nurse researcher, and that the nurse researcher will stop the conversation at my request if I am tired or bored.

I agree that:

1) I have been given an chance to ask questions about this research study, and that these questions have been answered to my satisfaction.

2) I have been told and understand that my participation in this study is completely voluntary, that I will receive no payment for my participation, and that I may withdraw at any time by telling the nurse researcher that I wish to withdraw.

3) I have been told and understand that if I withdraw from this study, this will not affect the care I receive from my physician or staff at this institution.

4) The researcher, Martha Ruble, has my permission to review any part or all of my medical record.

5) I have been told and understand that the information I provide or that is obtained from my medical record will be kept strictly confidential and private. I also understand that any information about me will be coded so that it will not be possible for anyone to identify who I am.
6) I give my permission to the researcher to release the information obtained in this study to scientific literature. I understand that I will not be identified by name.

7) I have been given the nurse researcher’s phone number and the phone number of the chairperson of the Grand Valley State University Human Research Review Committee so that I can contact either of these individuals at any time if I have any questions, comments or concerns.

8) I have been told that I will receive a summary of the results of this study if I request it.

I have read and understand the above information, and I agree to participate in this study.

__________________________________________  __________________________
Witness                                                                 Participant Signature

__________________________________________  __________________________
Date                                                                 Date

I am interested in receiving a summary of the study results.

Phone numbers:

Martha A. Ruble RN, MSN candidate
774-7389 (work)
530-9170 (home)

Dr. Paul Huizenga, Chair
Human Research Review Committee
Grand Valley State University
895-2472
### Appendix D

**Active Negotiated Approach Compared with Standard Pre-operative Teaching Regarding Post-operative Ambulation**

<table>
<thead>
<tr>
<th>Negotiated Approach</th>
<th>Standard Pre-operative Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I: Eliciting requests, attributions, and expectations</strong></td>
<td><strong>Phase I: Establishing patient's baseline knowledge regarding their surgery</strong></td>
</tr>
<tr>
<td>a. Nurse elicits the perceptions of the patient regarding his/her priority feelings or concerns for post-operative recovery period</td>
<td>a. Nurse asks patient what he/she understands or knows about his/her surgery</td>
</tr>
<tr>
<td>b. Nurse provides information on post-operative recovery period, starting with patient's priority concerns or anxieties. Ambulation will be stressed as an effective measure to:</td>
<td>b. Nurse proceeds with standard pre-operative teaching plan. The plan includes the following information about ambulation:</td>
</tr>
<tr>
<td>1. promote comfort: prevention of nausea, vomiting, and abdominal distention;</td>
<td>1. Ambulation is necessary to prevent circulatory, respiratory, and digestive complications of surgery.</td>
</tr>
<tr>
<td>2. reduce emotional/psychological stress from surgery;</td>
<td>2. The patient's physician or nurse will decide how often the patient should ambulate. The patient should expect to ambulate at least 3-4 times per day.</td>
</tr>
<tr>
<td>3. maintain adequate respiration and prevent respiratory complications</td>
<td></td>
</tr>
<tr>
<td>4. promote circulation and prevent circulatory complications.</td>
<td></td>
</tr>
<tr>
<td><strong>Phase II: Active interaction and consensus-building</strong></td>
<td><strong>Phase II: Obtaining feedback regarding post-operative instruction to ensure patient understanding of ambulation plan</strong></td>
</tr>
<tr>
<td>a. Nurse encourages patient participation by allowing him/her to analyze and question information, and give feedback.</td>
<td>a. Nurse asks patient to verbalize his/her understanding of instructions given regarding ambulation plan.</td>
</tr>
<tr>
<td>b. Nurse provides information about options regarding ambulation, including amount, frequency, and timing of ambulation.</td>
<td>b. Nurse asks patient if there are any further questions regarding the ambulation plan.</td>
</tr>
<tr>
<td>c. Nurse allows patient to explore his/her preferences regarding options for ambulation.</td>
<td></td>
</tr>
<tr>
<td><strong>Phase III: Decision-making</strong></td>
<td></td>
</tr>
<tr>
<td>a. Nurse assesses if there is a consensus about the plan of ambulation.</td>
<td></td>
</tr>
<tr>
<td>b. Nurse negotiates with the patient about parts or all of the plan until an agreement on the final plan is reached.</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix E

Approval Letter for Use of Patient Satisfaction Scale

3 April 1995

Elaine L. La Monica, Ed.D., J.D.
245 East 63rd Street, Suite #1914
New York, New York 10021

Martha A. Ruble, R.N.
3914 McIntyre Court
Grandville, Michigan 49418

Dear Ms. Ruble:

Please be advised that you have my permission to use the exact La Monica Oberst Patient Satisfaction Scale for the research investigation described in your correspondence dated 29 March 1995. This permission covers the duplication of no more than 200 copies for this particular investigation; my exact instrument must be used and may not be changed, adapted, or altered in any way. My complete instrument may not be included in any published material including theses or dissertations; only the source of the instrument must be identified for the reader.

The condition for permission is receipt of a copy of the finished manuscript(s) and/or article(s) reporting on your above titled investigation. All duplicated instruments, manuscripts, publications, and works using the above titled instrument must contain the following credit:


Thank you again for your interest in my instrument and I would like to wish you the best of luck in your research endeavors. Should you wish to use the instrument in a subsequent investigation or should it be necessary to make more copies, another letter of request and fee are required.

Most sincerely,

Elaine L. La Monica, Ed.D., J.D.

ELL:e
November 2, 1995

Martha A. Ruble
3914 McIntyre Ct.
Grandville, MI 49418

Dear Martha:

Your proposed project entitled "Patient Participation in Decision-Making Regarding Post-operative Ambulation: How It Affects Patient Outcomes" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

Paul Huizenga, Chair
Human Research Review Committee
MEMO

To: Martha Ruble
From: Carol Gates, RN, MSN
Subject: Your Research
Date: February 21, 1996

Dear Martha:

I am pleased to advise you on behalf of the Nursing Research Committee at Blodgett Memorial Medical Center that your proposal "Patient Participation in Decision-Making Regarding Post-operative Ambulation: How it Affects Patient Outcomes" has been approved. As I have informed you, the next is for you to receive informal support from the involved physicians and then I will take your proposal to the Medical Research Committee in April.

Your study is very interesting and I am anxious to see the outcomes related to involving patients in their plan of care. I will inform you of the approval status after our April meeting. Please call me if I can be of help before that time.

Sincerely,

Carol Gates RN, MSN
Chairperson, Nursing Research Committee
April 24, 1996

Martha Ruble, RN
Nursing Department
Blodgett Memorial Medical Center


Dear Martha:

Thank you for your presentation to the Research Committee at its recent meeting. I am pleased to inform you that the project was approved. The Committee considered your protocol carefully and believes the project is best accomplished with a randomized design. Dr. Lawrence Baer at the GRAMEC Office of Research would be an excellent resource should you decide to make that change.

Your project is scheduled to be reviewed by the Institutional Review Board later this month. They will be corresponding with you separately regarding their actions.

Sincerely,

 Ronald L. VanderLaan, M.D., F.A.C.P., F.A.C.C.
 Chairman
 Blodgett Research Committee
January 21, 1997

Martha Ruble, RN
Nursing Department
Blodgett Memorial Medical Center


Dear Martha:

The patient informed consent form you recently submitted has been reviewed and does contain all the revisions that were requested by the Institutional Review Board. Therefore, you have final approval to begin this research study at Blodgett Memorial Medical Center.

Follow-up on this study should follow the procedures of the Nursing Research Committee.

Sincerely,

Stephen D. Cohle, M.D.
Chairman
Institutional Review Board
References


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