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An examination of selected factors associated with nurses' behaviour and intentions related to patient teaching

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AN EXAMINATION OF SELECTED FACTORS ASSOCIATED WITH NURSES' BEHAVIOUR AND INTENTIONS RELATED TO PATIENT TEACHING

By

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Abstract

Patient teaching is integral in the provision of an effective health care service. Registered nurses in all settings, have a professional responsibility to contribute towards their clients' health promotion and maintenance by providing those clients with the health education they require. This study investigated the patient teaching intentions and behaviours of 181 registered nurses employed in acute medical and surgical settings at three metropolitan hospitals in Perth, Western Australia. Within the framework of Ajzen and Fishbein's (1980) theory of reasoned action, the study examined the relationships between registered nurses' intentions to teach patients, their patient teaching behaviours and selected factors that have been associated with enhancing or hindering nurses in carrying out their patient teaching. One of the aims of the study was to examine the relationship between registered nurses' patient teaching behaviours and intentions and their attitudinal and normative beliefs about patient teaching. The relationships between nurses' behaviours, intentions, attitudinal beliefs and normative beliefs about patient teaching and their perceptions of barriers to patient teaching, and their beliefs about the amount time required for patient teaching were also investigated. Along with these relationships, the study also examined the priority nurses gave to patient teaching when planning and providing nursing care to their clients.

Spearman's rank order correlation test and Kruskal Wallis chi squared approximation analysis were applied to the data. Results of the analysis demonstrated a statistically significant positive relationship between the frequency nurses stated they intended teaching patients and the frequency of their actual patient teaching. Most nurses reported that they intended to provide patient teaching at least once a day and that they were able to provide that service to their patients. The majority of nurses also reported favourable attitudinal and normative beliefs about patient teaching. A similar number of nurses also reported that they did not perceive any barrier in their clinical setting as being a likely obstacle to

them carrying out their patient teaching activities. Most nurses believed they should spend between 16 and 20% of their time on patient teaching activities. The implications of this study are that, in acute clinical settings, nurses show by their intentions and behaviours that they do recognise and address their responsibility to include patient teaching in their patient care. These nurses believe that their patient teaching is beneficial in the maintenance and promotion of their patient's health, an expectation also of those people nurses consider to be significant referents (clinical nurse specialists, staff development nurses and patients). Many nurses find patient teaching time consuming and give it a lower priority than other patient centred activities. The results of this study will help nurses, nurse administrators and nurse educators understand the factors that enhance positive and responsible patient teaching behaviours.

Declaration

I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

Ian Mullins

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Chapter One

Introduction

The study reported in this thesis examined factors associated with registered nurses' (nurses) patient teaching in acute medical and surgical hospital settings. In this study, patient teaching refers to nurses' contribution to the process of patient education.

Patient education is considered integral to modern health care systems. Today's societies demand that health care systems not only treat illness and disease but that they also provide a health promotion and maintenance service. There is a firm commitment by the discipline of nursing that patient health teaching should be an essential component of nursing care, and competency in patient health teaching is now mandatory for registration as a nurse throughout Australia (Australian Nurse Registration Authorities Conference, 1992). This commitment extends into all areas of nursing practice. Evidence suggests, however, that nurses who work in acute hospital settings may be confused about their patient teaching responsibility and may not be providing the educational service their patients need (Close, 1988; Redman, 1994; Wason & Anderson, 1994). There is therefore a need to investigate whether patient education is occurring in acute hospital settings in Western Australia and to identify those factors that may enhance or hinder nurses in their patient teaching activities. This information will assist educators and administrators in ensuring that nurses who work in these areas are committed to providing the patient teaching their patients require.

Background to the Study

Nursing's tradition has been that of a caring profession which provided a service to individuals who suffered illness or disease. Nightingale (1860) asserted

that the goal of nursing was "to put the patient in the best possible position for nature to act on him" (p.133). Such a goal was consistent with a view of the patient as a passive recipient of medical and nursing care, and of nurses as active care providers. Breslow (1985) contends that between 1925 and 1975 medical technology grew so rapidly that personal responsibility for health was dismissed and the lay person was considered to be ignorant of health matters. Fahrenfort (1987) further asserts that lay people tend to discredit their own personal knowledge and disclaim responsibility when they are classified as ignorant by experts. Redman (1994) contends that when this view predominates in health care services, health education is limited to disseminating medical information that is considered essential to ensure compliance to treatment regimens. This limited view of health care and the utility of patient education has been challenged in recent times.

Changing societal expectations have also led the health care professions to re evaluate the goals and focus of health care. Bartlett (1986) contends that the emergence of health consumer groups such as the civil rights movement, the consumer movement and the self help movement have made people more aware of their legal and ethical rights to be actively involved in their own health care. Health care professionals have responded to these pressures and now acknowledge that individuals are legally and ethically entitled to be actively involved in making decisions about their health care and also to be involved in the provision of that care (Redman 1994).

The individual's social obligation to accept personal responsibility for her/his health has also been highlighted. Levin and Idlier (1983) argued that, because of escalating health care costs, society demands that individuals take responsibility for maintaining their own health, and thus lessen the financial burden on their communities. The implication of this is that individuals must not only be responsible for their recovery from illness, but also take reasonable measures to

ensure they maintain healthy lifestyles to prevent avoidable illness. According to Levin and Idlier, the acceptance of personal responsibility for health care also entitles the individual to assistance in acquiring the knowledge and skills needed to meet that obligation. Patient education is seen to be the means to help people acquire the knowledge and skills they require to make appropriate health decisions, and to take active responsibility for their own health care (Redman 1994).

Changes in the demographic structure of society and increased knowledge of the disease processes have placed demands upon the health care services which have implications for patient teaching. Ruzicki (1989) argues that "many diseases once considered acute are now considered chronic" (p. 127). Also, increasing life spans have increased the pool of ill and debilitated clients, yet these clients are discharged earlier and expected to be responsible for their own care (Redman, 1994). Redman further points out that, because hospitals stays are shorter, advanced heath care techniques and procedures which were once exclusive to hospital care are now employed in patients' homes. The implication is that individuals and their families must acquire the knowledge and skills necessary to employ these techniques.

All nurses working in acute hospital settings have been affected by these changes. Giloth (1990) points out that budgetary constraints impact upon ward based staff who now have to assume additional responsibilities. According to Giloth patient education can no longer be considered a specialist area, but is a concern for all practising nurses in the clinical area. Patients and families need to be prepared prior to discharge to ensure that they can manage their recuperation. Nurses who work in acute hospital settings must be able and willing to act as health educators while continuing to provide traditional nursing care.

Bartlett (1986) and Wasson and Anderson (1994) suggest that patient education is not the responsibility of any one profession but that all health

disciplines must contribute towards the process of patient learning. Wasson and Anderson (1994) assert that decreasing lengths of hospital stays and the demands of aging populations will continue to dominate health care strategies within the foreseeable future. The implication is that there will be a greater need for health care agencies to integrate patient teaching into the services they offer their clients. The role of nurses in acute hospital settings could be vital in the continuity of care for health consumers. However, if nurse practitioners, employed in acute hospital settings, are to maintain their role in patient education in future they must be willing to develop new skills and techniques to supplement traditional methods of nursing care.

Wasson and Anderson (1994) point out that, because of the need for cost containment, health agencies in North America are looking to computer and other high technology programmes that are being developed to facilitate patient learning. Nurses will be expected to use such techniques and innovations as part of their patient care if they are to maintain their health teaching role. Explicitly, nurses must not only recognise the value of patient education but they must also be highly motivated to provide an educational service that both meets their patients' needs and contributes to cost containment within the health care system.

Significance of the Study

The literature on the nurse's role in patient education is predominantly from North America and Britain. However, as Close (1988) found, in a review of the then current literature, most of the information available was not based on research. Since 1988 there has been a small increase in research studies on patient teaching , in both the USA and Britain. It is important that the findings of those studies on patient teaching, are examined in an Australian setting.

Health care services throughout Australia are faced with the same need for cost restraint as their North American counterparts and are employing similar

strategies to contain their ever growing health care budgets. The decision by the Australian Health Ministers Advisory Council to introduce diagnostic related groupings (DRG) throughout all Australian hospitals by 1993 is one example of cost containment which has recently been introduced into the Australian Health Care System (Cunningham, Reid & Palmer, 1991). DRGs function to standardise in-hospital care by basing hospitals' funding on patient's diagnosis. This acts as an incentive to limit both admissions and stays within the hospital service. The implication for Australian health care is that patients will be discharged earlier from the hospital service and they will be expected to assume a greater role in their own recuperation. Patient education programmes are essential to equip patients with the abilities they need to assume this greater responsibility.

The effective implementation of patient education affects not only cost containment measures but also the patients' readiness for discharge and their ultimate well being. Accordingly, nurses employed in acute hospital settings throughout Australia must be capable and willing to facilitate their patients' learning. These nurses may, however, have less time to interact with their patients and consequently less time to facilitate patient learning. To meet this challenge Australian nurses will need to be motivated to acquire the knowledge and skills necessary for innovative and effective patient teaching. This study, which examines Western Australian nurses' intention to teach patients and their patient teaching activities in acute hospital settings provides a current description of Western Australian nurses' motivation to teach patients and a measure of their present commitment. This information is a necessary prerequisite for nurse educators and staff development nurses engaged in nurse re-education and will be useful in the further refinement of the patient teaching process.

This study is focused on examining the relationship between nurses' self reported patient teaching behaviours and their stated intention to carry out those behaviours. Redman (1994) points out there have been few studies which describe

the degree to which nurses include patient teaching in their daily patient care. Studies conducted to date, for example Barrett, Doyle, Discoll, Flaherty & Drombrowski (1990); Kruger (1990), Tilley, Gregor and Theissen (1987), have concentrated on describing nurses' perceptions of their patient teaching role and the association between those role perceptions and various factors which could enhance or prevent nurses from meeting their patient teaching responsibility. The importance of clearly defining the nurse's role in patient education has been reiterated by several researchers (Benner, 1984; Pohl, 1965; Tilley et al., 1987). The various studies reported in the literature, however, have not clearly defined the nursing behaviours associated with the nurse's role in teaching patients. Therefore, it is not clear if various definitions used in these studies describe the same target behaviours, or if the nurses studied recognised the definitions employed as reasonable descriptions of their patient teaching behaviours. By focussing on the nursing actions associated with patient teaching and the frequency of the intention to carry out those actions, this present study will provide information on patient teaching which has not yet been available.

The theoretical framework for this study is derived from Ajzen and Fishbein's (1980) theory of reasoned action. This theory, which is described in Chapter 3, proposes that an individual's intention to carry out the actions associated with a target behaviour predicts the likelihood of that behaviour being carried out. Fishbein and Ajzen further propose that an individual's attitudinal beliefs and normative beliefs about the value of a behaviour predict their intention to carry out that behaviour. A review of the literature found that no study has tested either of these propositions with regard to nurses' patient teaching activities. An instrument was specifically developed for this study to test these two propositions. The development of such instruments are important to increasing the understanding of the practice of nursing. Bradley (1983, p.110) asserts that "Nursing as an academic discipline, should be able to identify not only what it is

that nursing does, but which aspects of the nursing role are important." This study specifically addressed practising nurses' intentions to carry out an important nursing role and their beliefs about the value of that role. The information gained in this study adds to the understanding of nurses' patient teaching in the acute hospital area of the health care service. The instrument developed for this study has the potential to be adapted and refined for the study of nurses' intentions to teach patients in alternative clinical settings and to examine other aspects of nursing practice.

This study was extended beyond Ajzen and Fishbein's (1980) model to allow for the examination, in an Australian context, of additional factors that had been identified in overseas studies as being associated with enhancing or hindering nurses in their patient teaching. Specifically, the study also examines the association of three additional factors and nurses' attitudinal and normative beliefs about patient teaching. These factors are nurses' perceptions of barriers to patient teaching within their clinical settings and their estimations of the value of spending time on patient teaching. In addition, the priority nurses give to patient teaching when planning and providing patient care was examined. Such information is a necessary prerequisite to the development of re education programmes. Nurse educators and administrators need to be aware of those factors which are likely to enhance or hinder nurses in their patient teaching activities before in-service training programs on patient teaching are initiated.

Purpose of the Study

The primary purpose of the study was to examine selected factors that have been associated with nurses' patient teaching behaviours in acute hospital settings. The factors examined were nurses' intention to teach patients (intention), attitudes towards patient teaching (attitude), perception of the normative pressures to teach patients (subjective norms), barriers to patient teaching (barriers), beliefs about the

amount of time patient teaching required (time), and the prioritorisation of patient teaching (priority).

The second purpose of the study was to develop and test a questionnaire to assess the attitudes, subjective norms, and selected external variables that have been associated with nurses' intention to engage in patient teaching activities.

Research Questions

Specifically the study addressed three main questions. These questions were:

1. What is the relationship between nurses' intentions to teach patients in acute clinical settings and their patient teaching activities?
2. What is the relationship between nurses' intentions to teach patients in acute clinical setting and their attitudes towards patient teaching?
3. What is the relationship between nurses' intentions to teach patients in acute clinical settings and their subjective norms for patient teaching?

The following subsidiary questions were included in the study to provide a more detailed understanding of which factors were associated with nurses' patient teaching behaviours:

1. What is the relationship between nurses' intentions to carry out patient teaching and their perceptions of situational barriers to patient teaching?
2. What is the relationship between nurses' attitudinal and normative beliefs towards patient teaching and their perceptions of situational barriers to patient teaching?
3. What is the relationship between nurses' intentions to carry out patient teaching and their beliefs about spending time on patient teaching?

4. What is the relationship between nurses' attitudinal and normative beliefs towards patient teaching and their beliefs about spending time on patient teaching?
5. What is the relationship between nurses' intentions to carry out patient teaching and their age, experience, professional education, employment status, clinical specialty and their level in the Western Australian nurses' career structure.
6. What is the relationship between nurses' attitudinal and normative beliefs towards patient teaching and their age, experience, professional education, employment status, clinical specialty and their level in the Western Australian nurses' career structure?
7. What is the relationship between the priority nurses give to patient teaching when planning care and the priority they give to teaching patients when providing care?

Definition of Terms

The theoretical and operational definitions of the major variables measured in this study are as follows:

Registered Nurse (nurse) - any person, who has completed an approved programme of nursing education, and is currently registered with the Nurses Board of Western Australia as a registered nurse.

Patient Education - is the process of influencing patients' behaviour, producing changes in knowledge, attitudes and skills required to maintain and improve health status (Carter 1990).

Patient Teaching and Coaching (patient teaching) - formal and informal activities that allow the nurse to help patients learn new knowledge, gain understanding and/or acquire skills.

Intention to Teach Patients (intention) - a stated predisposition to teach or not to teach patients.

Attitudes Towards Patient Teaching (attitude) - the disposition or general feeling, which is based on salient beliefs that patient teaching will lead to mostly favourable outcomes, or that patient education will lead to mostly negative outcomes, which leads the nurse to either favour or disfavour patient teaching as a relevant nursing intervention in acute clinical areas.

Subjective Norms of Patient Teaching (Subjective norms) - beliefs based on the individual nurse's perception that people and groups of people who she/he regard as important (salient referents) think that the nurse should or should not provide a patient teaching service in the clinical area.

Salient Beliefs - the nurse's specific beliefs that patient teaching will lead to a particular outcome.

Salient Referents - specific people or groups of people who are considered to be important to nurses.

Chapter Two

Literature Review

Introduction

The following review examines the literature on the nurse's role in patient education and factors that have been found to influence nurses' patient teaching. Initially the literature that has described and defined the nurse's role in the process of patient education is analysed. The review further examines studies which have sought to describe how practising nurses perceive their patient teaching role. Significant factors that can motivate or hinder the nurse in carrying out patient teaching are identified and critically analysed. The first factor is that although nurses report that they want to teach more than they presently do, they are often unsure of the extent of their role in the process of patient education. The second factor is that, while nurses acknowledge that patient teaching is an important nursing function they tend to give it a low priority compared to other patient centred activities. Finally, nurses have consistently identified barriers that prevent them from patient teaching, and these are also reviewed.

The Nurse's Role in the Patient Education Process

The importance of patient education as a relevant nursing intervention has been recognised since the nineteenth century. In 1860 Nightingale, proposed that "nurses should act as educators particularly in relation to hygiene practices" (cited in Novak, 1988, p.35). However, as Levin (1987) points out, the concept of patient education programmes as purposeful organised nursing interventions is relatively new. From a literature review, Close (1988) found that patient education has commonly been defined as a "process that influences patient

behaviour, producing changes in knowledge, attitudes and skills required to maintain and improve health" (Close 1988, p. 204). According to Close, the nurse's role in the process of patient education is patient teaching. Patient teaching within this perspective refers to "the implanting of information" (Close, 1988, p. 204). Close further contends that patient teaching is comparable with the nursing process in that as any other nursing intervention it should be "planned, implemented and evaluated" within a problem solving process (1988, p.206). The nursing theorist Dorothy Orem (1985), further proposed, that the nurse's role in patient education should be both supportive and educative. Benner (1984) described the nurse's contribution towards patients' education as a teaching and coaching function. This nursing function, according to Benner, goes beyond information giving or formally planned teaching sessions and is incorporated in total patient care. These various definitions of patient teaching continue to be employed throughout the literature on the subject and in specific research studies.

Providing information

The belief that the nurse's role in patient education is or should be limited to providing information has been favoured in studies conducted in British hospital settings. In a 1983 review of the literature, Wilson-Barnett and Osborne, found 23 out of 29 studies reviewed showed that patients benefited from this type of patient teaching. These authors concluded that patients gain from and appreciate more information and this may result in less anxiety, more participation in their own care and an increased feeling of control over their lives.

The value of providing patients with information was demonstrated in an experimental study of the effectiveness of three methods of patient education conducted by Miller and Shanks (1986). In this study, the definition of patient education was restricted to providing patients with medically orientated

information. The three methods of patient education examined in this study were a physician presenting patients with information and an educational handout, a nurse presenting patients with information and the same handout, and patients receiving the educational handout without explanation or guidance by physician or nurse. Forty-five patients were assigned to each study group. The records of a study comparison group of 40 patients, who had received medical treatment but no patient teaching during a 2.5 month period one year prior to the study, were reviewed for compliance with treatments. Results of the study showed that the nurse educated group scored significantly higher than the other groups for both a telephone survey by questionnaire and in compliance with a treatment regimen. All three study groups were found to be significantly more compliant with treatment than the comparison group. The authors of this study, who were medical researchers, concluded that nurses are "valuable allies in patient education" (p.181). The implication of this conclusion is that the main purpose of patient education is to foster patient compliance with medical regimens.

In an earlier study Toth (1980) compared the anxiety levels of 10 patients who had received structured information in preparation for transfer from a coronary care with a similar group of patients who had received only routine information. In this study, conducted in a Washington DC general hospital, the patients who had received structured information were found to have significantly lower anxiety levels than those who had received only unstructured information.

The value of providing information to enhance patients' self care ability has, however, been questioned by Dodd (1988). Dodd asserted that frequently patients do not understand the information they are given by physicians and nurses and that they do not recall or are unable to use that information when caring for themselves. To test this proposition Dodd conducted a pre-test post-test study with a non random sample of cancer patients who had recently undergone breast surgery and who were on chemotherapy. The anxiety levels and side effect management

abilities of a group of 30 subjects were assessed before receiving structured information on drug side effect management techniques and again eight weeks after receiving that information. Anxiety levels were measured on established instruments. The subjects of this study, also maintained a log to record the drug side effects they experienced and how they dealt with those effects. The results of the study showed that the patients did not initiate management techniques sooner nor experience less severe side effects than they had before receiving structured information. The patients' levels of anxiety were, however, found to be significantly lower after receiving the information.

The strengths of this study include the design and analysis of the data. In this study both qualitative and quantitative data were analysed. Finally, the results of the research were comprehensively compared to other research studies which had used the same instrumentation.

The generalisation of the findings of the studies conducted by Toth (1980), Miller and Shank (1988) and Dodd (1988) are limited by a small convenience sample drawn from single settings. Also, the populations of each study were restricted to patients with specific disease processes and/or on specific treatment regimens.

In summary, the available literature on providing information as a patient teaching strategy indicates that patients can benefit from receiving structured information on their health status and treatments. Miller and Shanks (1988) found that providing information led to higher levels of compliance with treatment regimens. Providing information to patients was also found to reduce anxiety levels associated with medical treatments and hospital procedures (Toth, 1980; Dodd, 1988). Dodd (1988), however, found that the provision of structured information about the management of the side effects of chemotherapy did not necessarily enhance cancer patients' self care abilities.

Nursing as a supportive-educative system

For many years nursing scholars and theorists have emphasised the importance of the nurse's independent role in educating patients (Peplau, 1952; Henderson, 1966; Orem, 1973, 1985). Close (1988) contends that the practical implementation of patient teaching is a basic element of nursing and that to be effective teachers, "nurses must develop a wide range of abilities to do justice to patients." (p. 206). These abilities include independence in planning, implementing and evaluating patient education within the context of the nursing process (Narrow, 1979; Bille, 1981: and Redman, 1994). The belief that all elements of nursing practice, including patient teaching, should be provided through the nursing process is also supported by most nursing theorists (Fawcett, 1994). Orem (1985) for example, conceptualised nursing practice as a purposeful planned endeavour that includes a supportive-educative system. Supportive-educative nursing systems are "for situations where the patient is able to perform or can and should learn to perform required measures of ... therapeutic self care but cannot do so without assistance." (Orem 1985, p.156). Self care behaviour, according to Orem, involves performing deliberate actions to meet self care needs for maintaining health.

Hartley's (1988) study tested Orem's conceptualisation of the relationship between a supportive educative nursing system and self care behaviours. The focus of this study was the accuracy and frequency of women's breast self examination behaviours following a patient teaching programme. The study group consisted of 23 volunteers who responded to advertisements placed in health clinics in a rural community in Southern Virginia, USA. The subjects were taught the technique and practice of breast self examination by the nurse researcher using a silicone model and were further instructed to practise on themselves through their clothing. To ensure the patient teaching was both supportive and educative various teaching strategies were employed to meet the learners' individual needs

and abilities. All the women were able perform correct breast examination technique when individually assessed by independent nurse raters immediately following the teaching sessions. A post-teaching questionnaire, relating to the frequency of breast self examination, was administered 60 days after the teaching session. Analysis of the questionnaire revealed that 96% of the women reported that they had practised breast self examination two or more times during the 60 day period. Hartley concluded that there was a relationship between effective and efficient learning of self care behaviours for breast self examination and the use of the supportive-educative nursing system proposed by Orem.

Experimental nursing research studies also provide evidence that planned nursing care, that addresses the patient's health care learning needs, is effective in helping patients and their families prepare for discharge from hospital, deal with the effects of hospitalisation and to become self caring with their own health problems. Effective patient teaching can also encourage patients to be less reliant on health care facilities, and to use those facilities appropriately in their health care maintenance. Alexander, Younger, Cohen and Crawford (1988), for example, found that clinical nurse specialist (CNS) intervention based on Orem's Self- Care Nursing Model significantly reduced emergency room utilisation by asthmatic children. In this study 21 children from low income families, who used a paediatric hospital's emergency room as their primary source of asthma care, were randomly assigned to either a control group or a CNS group for a follow up appointment at the hospital's allergy clinic. After assessing individual family needs, the CNS counselled each family in the experimental group, regarding preventive health measures, focusing on early recognition of asthma exacerbations and self care. The families of the control group received routine consultation from paediatric residents and clinic staff. During the 12 month study period the CNS group subjects demonstrated a significant reduction in the frequency of emergency room visits compared with the 12 month period before the CNS intervention. The

control group subjects demonstrated no change in emergency room use. The frequency of allergy physician contact and the total number of outpatient department visits were similar for both groups during the study period.

An improvement in the self care abilities of adult asthmatics following formal patient teaching has also been observed. In a pilot study, Huss, Salerno and Huss (1991) found that 52 adult atopic asthmatics who had received an experimental computer assisted instruction reported greater adherence to house dust mite avoidance techniques than a group of 50 patients who had only received verbal explanation on the same topic. The subjects for this study were a convenience sample drawn from a population of patients with chronic atopic asthma who were currently receiving treatment at a tertiary medical centre. The authors of the report noted that house dust mite was one of several vectors that can cause an allergic response in asthmatics and that as a result of this study more computerised learning programs will be developed to help asthmatics deal with these vectors.

Buckley's (1990) study was concerned with the effectiveness of patient teaching in encouraging clients with known health care risks to include appropriate use of health care facilities in managing their self care after discharge from hospital. In this study, a convenience sample of 10 women with a high risk of post partum complications were given individual patient teaching before discharge from hospital. Patient teaching by clinical nurse specialists included symptom identification and self care techniques. Subjects' progress and appointment keeping compliance were monitored over a 6 month period. The study group were found to be significantly more compliant with their attendance at a peri-natal clinic than a comparison group who had only received routine information before discharge. The authors of the report also noted that the subjects displayed more effective self monitoring ability following the patient teaching programme.

Other studies have yielded conflicting findings regarding the value of patient teaching to enhance patients' self care abilities. Meeker, Rodriguez and Johnston (1992), for example, reported that a structured pre-operative teaching programme with an experimental group of patients did not have the expected beneficial effect of reducing the incidence of post operative atelectasis and increasing patient satisfaction. The study employed a non random convenience sample of 144 patients from a surgical unit of a New Orleans general hospital. A comparison was made between one group of patients who received formal teaching individually and in classes on breathing exercises, post operative positioning and stress management, and a group who received instruction and information on an informal basis only. The subjects' self care ability and satisfaction with the patient teaching provided were evaluated by instruments specifically developed for this study. The report does not provide any information on how the instruments employed in the study were developed or evaluated.

There are several features that limit the generalisation of the findings of the above studies to all nursing practice. The most important limitation is that the nurses who were employed in the various research projects were either clinical specialists or had received training in the patient teaching methods that were evaluated. Buckley (1990), for example, employed nurses with obstetric training and Alexander et al. (1988) examined paediatric clinical nurse specialists. In the study conducted by Huss et al. (1991) the nurses had training in the use of computerised patient teaching programmes. In contrast, Meeker et al. (1992), whose study failed to show that formal patient teaching programmes were more effective than informal patient teaching, examined the patient teaching activities of nurses with varying degrees of ability and skill. Also, several of the studies were designed to specifically evaluate innovative patient teaching programmes or materials (Hartley, 1988; Huss et al., 1991; Meeker et al., 1992). The implication is that the type of patient teaching conducted in these studies may not have been

typical of the current practice in the various research settings, and the nurse educators may not have been typical of the nurses usually employed in the various settings.

Further limitations to the generalisation of the findings of the above studies were evident. All the studies were conducted in single settings and the study populations were exclusive groups of patients with very specific health problems or treatment regimens. For example, the study by Huss et al. (1991) was concerned with adult asthmatics, Alexander et al. (1988) studied asthmatic children from low income families, Toth (1980) studied patients in a coronary care unit and Buckley (1990) was concerned with women who were at high risk of post partum complications. Meeker et al. (1992) acknowledge specific limitations of their findings. In the later study, the subjects completed their questionnaires immediately before discharge in the presence of the researchers who were also the patients' teachers. The researchers conceded that the subjects' responses may therefore, have been influenced by their personal involvement with the researcher. The patients also may have been preoccupied with their discharge and distracted from thoroughly reading the questionnaire or answering accurately. None of the above studies have been replicated nor were they based on earlier works.

In summary, the studies that conceptualised patient teaching as an independent function of nursing and which involved planning, implementing and evaluation of the nursing actions highlight an interesting point. These studies emphasise that in specific instances nurses are capable of independently facilitating effective patient teaching. Patients have been shown to benefit from that patient teaching by learning and employing self care behaviours (Hartley, 1988; Huss, et al., 1991), by less reliance of health care facilities (Alexander, et al., 1988), by increased compliance with treatment regimens and with increased responsibility for their own health maintenance (Buckley, 1990). The patient teaching activities and the outcomes of that teaching demonstrated by these studies, however, cannot be

taken as descriptions of the standard or type of patient teaching commonly found in nursing practice. Also these studies do not account for any intuitive and informal patient teaching activities nurses may perform at the bedside while they attend to the patients' other needs.

Patient teaching and coaching as a domain of nursing practice

Benner's (1982) qualitative study is one of the few that describes the actual patient education activities carried out by practising nurses. Benner (1982, 1984) collected interviews and participant observations from 70 practising nurses in various health care settings, to elicit the functions and skills of practising nurses. Nurses with varying degrees of skill were asked to describe their own practice, to identify expert practitioners and to give instances of expert practice. In the analysis of the participants' reports Benner identified seven specific areas of nursing practices which she described as the domains of nursing practice. Teaching and coaching was one of the seven domains of nursing practice identified in this study. Teaching and coaching was described as being embedded in skilled nursing care and included helping patients cope with their illness and mobilising them for recovery. Teaching, according to Benner (1984) involves recognising the patient's need for knowledge and understanding and implementing interventions to address those needs. Coaching involves "making the culturally avoidable understandable and approachable" (1982, p.407). Benner described the coaching function of nurses as occurring when "nurses who have come to grips with the culturally avoided or uncharted open ways of being and ways of coping for the patient and the family" (1982, p.407).

Benner's study described the general abilities and attributes of nurses in various stages of skill acquisition. The description of the domain of teaching and coaching, however, is limited to outlining the competencies displayed by expert nurses. Expert nurses, according to Benner, are highly intuitive in their practice

and are capable of recognising and responding to their patients' needs as they arise. Expert nurses were also described as often implementing their nursing interventions as immediate responses to their patients needs without apparent planning or consideration or conscious evaluation (Benner,1982). The teaching and coaching activities of these highly skilled nurses were, therefore, mostly informal. Novices, advanced beginners and competent nurses, however, were found to lack the intuition and tacit knowledge of experts and were dependent upon formal plans and procedures to guide their practice (Benner, 1982).

In summarising the literature on patient teaching and the nurse's role in that process several points emerge. There is general agreement that patient education serves to enhance patients' ability to maintain and promote their own health status, and to be responsible in their own health care. The nurse's role in patient education is generally considered to be patient teaching. Opinions differ, however, to what extent nurses should teach their patients.

Nurses' Perceptions of Their Patient Teaching Role

Recent surveys report that generally nurses recognise the importance of patient education and believe that it is a relevant nursing intervention (Caffarella, 1984; Tilley et al., 1987; Honan, Krsnak, Peterson & Torkelson, 1988; Barrett et al., 1990 and Kruger, 1991). Nurses were, however, found to be unsure of what should be the extent of their role in the process of patient education. These studies also show that nurses are often not satisfied that their patients received the education they required. A common feature of many of these studies was the use of role theory as the basis of their conceptual /theoretical frameworks. Barrett et al. (1990), for example, hypothesised that positive perceptions of an occupational role are associated with positive attitudes and beliefs towards carrying out that role. Kruger (1990) considered the association of nurses' role perceptions and their estimations of their achievement in patient teaching.

In a descriptive study conducted in community hospitals in Maine USA, Caffarella (1984), defined the nurse's role in patient education as being a formal planned nursing intervention. Health care professionals, a third of whom were nurses, were asked to indicate whether they believed nurses should take a primary responsibility for planning and or conducting patient education in three content areas. The three areas were, teaching self care independence skills, teaching patients to administer their own treatments, and teaching general preventative medicine. The majority (75%) of the nurses felt they had a responsibility for these three areas of patient teaching activities. Nurses were found to be less inclined, however, to accept that they had a primary responsibility for planning and conducting patient education programmes in hospital settings. Physicians were found to be even less inclined to ascribe to nurses the primary responsibility for patient education. Only 29% of the physicians as compared with 37% of the nurses, indicated that they felt nurses should be primarily responsible for planning and conducting patient education. Caffarella concluded that "further investigation needed to be conducted for both theoretical and practical applications as to the role of nursing in the delivery of patient education services for hospitalised in-patients." (p. 223).

In a more recent study Kruger (1990) found that nurses' perceptions of their patient teaching responsibility and their satisfaction with how well they met their patients' learning needs differed according to their employment status. In this study a stratified random sample of 1,230 nurses selected from the American Nurses Association register was surveyed by questionnaire. The study's definition of the nurse's role as patient educator included nurses' attitudes towards their role as patient educator. Subjects were asked to record their opinions regarding their responsibility and achievement for three areas of patient education. These areas were preparing patients for hospital care and interventions, preparing patients for discharge from hospital, and documenting patient education activities. The three

groups of nurses identified in the study were staff nurses, nurse administrators and nurse educators. All three groups supported the nurse's role as patient educator and in contrast to Caffarella's (1984) study, nominated nurses as primary patient educators. Staff nurses (that is, nurses who had more personal involvement in direct patient care) were found to be significantly less positive in their belief that patient education was their primary responsibility than were the other two groups. Kruger noted that, in contrast to their positive attitudes and role perceptions of patient education, the respondents rated their patient education activities as not being achieved at a satisfactory level. In response to open questions on how increasing needs for patient education could be met, many respondents stated that they needed more administrative support in reviewing workloads to allow time to teach patients.

The strengths of Kruger's study include the simple design, adequate sample size with a return rate of 59% and appropriate statistical analysis. Instrument reliability estimates using Cronbach's alpha were acceptable (range = .81 to .84).

In contrast to Kruger, Barrett, et al. (1990) restricted the definition of patient teaching to account for only those activities directly related to influencing and assisting patients to perform self care activities. In this study practising nurses were asked to complete a 40 item questionnaire that addressed their perceptions of their skills, effectiveness as patient teachers and educational preparation to teach patients. Subjects for this study were chosen by non probability sampling from 1355 registered nurses employed at one institution. Most of the 465 respondents were baccalaureate prepared staff nurses, and they were found to view their patient education role as satisfying. The majority of respondents also agreed that they had skills and educational preparation to teach patients. They also reported, however, that they felt that their patients were not well prepared to care for themselves on discharge and that too much information about their conditions was withheld from patients. Summary scales indicated that nurses in charge perceived themselves as

having a greater role in patient education than the staff nurses who had greater patient contact and more opportunities for patient teaching. The majority of respondents reported that they did not have enough time or materials for teaching patients.

Several features limit both the internal and external validity of the study conducted by Barrett et al. (1990). These include lack of reliability or validity figures for the questionnaire. Also the response rate at 35% was low and details of the follow up procedure for non respondents were not included in the report. The use of a convenience sample from the nursing population of one institution limits generalisation of the findings of this study.

Nurses' perceptions of their responsibility in patient education, together with the factors that would hinder and or enhance nurses in fulfilling their patient teaching role, were examined in a descriptive study conducted by Honan et al. (1988). The study population was limited to 90 nurses employed as staff nurses or first line managers in a veterans medical centre, South Dakota, USA. The findings of this study indicated that 90% of the respondents strongly agreed or agreed that "patient teaching was an important part of their responsibility" (p.35). However, all the respondents also believed that patient teaching was a multi-disciplinary responsibility and only 58% believed that it was their responsibility to co-ordinate patient teaching. Owning responsibility for patient education, the priority patient teaching was given and knowledge of how to facilitate patient education were found to be factors that could enhance or hinder nurses in their role as a patient educator. Honan et al., also reported that while data from "Likert type questions indicated that nurses believed patient education was a high priority" a rank order question revealed that patient teaching was "not a high priority when ranked with other nursing duties such as patient care" (p.36).

The internal and external validity of the above study is limited by several features. First, although the instrument used was specifically developed for this study the report does not include reliability or validity figures for that instrument. Secondly, only a very small convenience sample was surveyed. Finally, data analysis was limited to describing the factors the respondents perceived as enhancing or hindering their patient teaching role.

In summary, although the above studies have each conceptualised patient teaching differently, they indicate that nurses recognise the importance of patient education and generally accept that they have a responsibility to teach patients. There is, however, no agreement on the extent of that responsibility. Caffarella (1984) found that nurses did not believe they had a primary responsibility in this role, while the respondents to Kruger's (1990) survey nominated nurses as primary patient educators. Honan et al. (1988) found that nurses believed that patient teaching was an important part of their responsibility but that patient education was a multi- disciplinary function. Barrett et al. (1990) reported that nurses found their patient teaching role satisfying. Both Kruger (1990) and Barrett et al. (1990) reported that nurses were not satisfied with their achievements in patient teaching.

Factors that Enhance or Hinder Patient Teaching

An important feature of the above studies was the identification of factors that were associated with nurses' role perceptions and their satisfaction with their patient teaching activities. Kruger (1990) and Barrett, et al. (1990) both found that the majority of nurses have positive attitudes towards patient teaching. However, Honan et al. (1988) and Barrett et al. (1990) found that nurses report that barriers in the hospital settings impede their patient teaching activities. Cafferella (1984) reported that nurses and physicians do not agree on the extent of the nurse's role in patient education. Honan et al. (1988) found that nurses ascribe a lower priority to patient teaching than other patient centred duties. Finally,

nurses consistently reported that they do not nave sufficient time for patient teaching (Honan, 1988; Barret et al., 1990; Kruger, 1990).

Nurses' attitudes towards teaching patients

The importance attitudes have in enhancing or hindering nurses' willingness to engage in patient education and/or patient teaching has been examined in several studies. Although the importance of this concept in behavioural prediction has interested social psychologists for decades (Collister, 1984 and Stone, 1992) few nursing studies have used this psycho-social perspective and attempted to quantitatively predict behaviour with attitude.

In 1986 Stanton surveyed a random sample of 300 registered nurses in New York, USA. The purpose of this study was to test the relationships between nurses' attitudes towards patient education, the amount of time they spent teaching patients and their demographic characteristics. Data collection was by a questionnaire specifically developed for the study. Stanton concluded that most of the respondents felt patient teaching was a vital aspect of their nursing, and the majority were found to have positive attitudes towards patient teaching. According to Stanton the respondents appeared to be confused about what specific information nurses could provide and what their relationships with other health care team members should be concerning patient education. The strengths of this study included design and appropriate statistical analysis and the response rate of 58% was adequate. Instrument reliability estimates using Cronbach's alpha were acceptable at 0.84.

Stanton's study was mirrored by Belisle in 1990 with a random sample of 300 registered nurses from Michigan USA. Stanton's questionnaire was used in this study as a measure of nurses' attitudes towards patient teaching. Neither Stanton nor Belisle was able to establish any significant association between nurses'

attitudes towards patient teaching and the amount of time nurses spent teaching patients or the respondents' demographic characteristics.

In summarising the available literature on nurses' attitudes towards their patient education role several interesting findings emerge. Early studies on nurses' attitudes towards patient eduction suggested that nurses tended to have mostly negative attitudes (Pohl, 1965). The situation appears to have changed, and recent studies indicate that nurses now tend to be more positive in their attitudes towards patient education but are unsure of their patient teaching responsibility (Stanton, 1986; Kruger, 1990: Barnett, 1990 and Belisle 1991).

Incongruence in role perceptions

The finding of Caffarala's (1984) study which indicated that nurses ascribe more responsibility to the nurses' role in patient education than do physicians, is supported by earlier studies cited in review of the literature conducted by Wilson-Barnet and Osborne (1984). Such incongruence in role perception may have serious effects upon the effectiveness of nurses' patient teaching. According to Tilley et al. (1987) "effective patient education is contingent upon both the nurse and the patient having a realistic appraisal of their own, and other's roles" (p.292). The implication of this is that nurses must be realistic in their appraisals of significant other's expectations of their patient teaching if they are to be effective patient educators. Tilley et al. (1987) further suggest that if nurses are to be effective patient educators, they must not only ensure that they are accurate in their appraisal of the expectations of other members of the health team, but they must also be aware of what type and amount of patient teaching their patients expect.

In a research study based on the above proposition Tilley et al. (1987) found that incongruencies do exist between nurses' and patients' perceptions of the nurse's role in patient education. In this study a convenience sample of 38 matched nurse-patient dyads were selected from two Canadian teaching hospitals. Data

were gathered by a questionnaire specifically developed for study and analysed by t-tests. The analysis of data showed that two areas of incongruence existed. The first area of incongruence was that although patients acknowledged nurses as a source of information they indicated that they preferred to have physicians as teachers. Nurses most frequently chose a nurse as the primary patient teacher. The second area of incongruence related to the time for patient teaching. Nurses identified the period just before discharge as the most often used and most effective time for patient teaching. Most patients were unable to identify any specific occasion when they received useful information and a few patients identified the early part of their hospitalisation as the most important time for patient teaching.

Tilley et al. (1987) pointed out that because the majority of the patients included in the study were recovering from myocardial infarction their responses may not be typical of hospitalised patients with other disease processes. In concluding their report the authors reiterated the need for clear definitions for the nurse's role in patient education. They also argue that "rather than providing medically orientated information, the nurses' role may be to provide assistance to patients with interpreting their illness experiences and integrating that experience into their lifestyles" (p.299).

The priority given to patient teaching

According to Honan et al. (1988) "the priority a nurse places on his or her patient educator role can also influence their patient teaching" (p.36). The priority nurses in the practice area give to any activity, however, may well depend upon whether they recognise it as part of their total patient care or as an additional task (Lock Palm, 1971). In 1971 Lock Palm found that 59% of the 151 medical/ surgical nurses who responded to a survey, reported that they assigned top priority to patient teaching over physical care, supportive care and non patient centred

duties. Lock Palm's study is significant because informal teaching at the patient's bedside during daily care was considered to be an important aspect of patient teaching. Unstructured and incidental teaching was seen to be dependent upon the nurse's recognition of a teaching opportunity and the priority nurses gave to the teaching function in a given situation.

In contrast to Lock Palm, Bradley (1983), who examined nurses' attitudes towards six dimensions of nursing practice, found that nurses gave patient teaching activities a low priority in comparison to other nursing duties. In this study, respondents were asked to rank in order 24 nursing behaviours or functions in order of how important they believed each was to their overall ability to function as a nurse. Two items in Bradley's questionnaire related directly to patient teaching. One item "Assisting the individual and family in the practice of mental and physical health through health teaching...." was ranked 12th, while the other "Teach health measures and provide health counselling to families" was ranked 22nd. Items relating to understanding the physical and biological factors that underlie normal function, assessing the individual's nursing needs and applying communication skills in the implementation of nursing care were accorded higher rankings than items relating to patient teaching. Bradley concluded that nurses perceive behaviours and functions that highlight the autonomy of nursing as most important.

Bradley acknowledged that the generalisation of her findings is limited. The population was restricted to female nurses who had graduated from specific universities and who had less than three years practical experience. It is questionable whether Bradley's research described nurses' attitudes towards the dimensions of nursing practice, or how well university educated nurses internalised what they learnt at university. Also the nursing behaviours and functions that were examined in this study were selected from the nursing curriculum of those universities. As Bradley points out her study did not attempt to clearly define all aspects of nursing practice, nor did it attempt to address all the behaviours

associated with nursing practice. Those items in the questionnaire that do relate to patient teaching, however, suggest that a formal approach to patient teaching was envisaged.

The studies of Bradley's (1983) and Honan et al. (1987) indicate that while nurses who work in practice settings may recognise the importance of patient education they tend to rank it as less important than other patient centred duties. None of these studies examined nurses' actual patient teaching activities, or the possible relationship between those activities and the priority they gave patient teaching.

Barriers to patient teaching

Lipetz, Bussigel, Bannerman, and Risley (1990) report that barriers in the clinical areas prevent nurses from providing quality patient education. In this descriptive study, conducted at a major mid western medical centre in the USA, nurses and physicians were surveyed to determine their perceptions of three key barriers to patient teaching. Nurses were found to differ from physicians in that nurses were more likely to identify barriers in the clinical setting as impediments to their patient teaching activities. Of the 86 nurses who responded to the survey 72 reported that they believed patients were not in hospital long enough to receive patient education, 66 nurses believed their patient's condition was an impediment to patient teaching and 61 nurses reported that patients' lack of interest discouraged nurses from engaging in patient teaching. A small number of nurses (n = 39) reported that they believed hospitals were not appropriate settings for patient education. The study was limited by a small sample drawn from a single setting. However, the authors of the report found that their results and conclusions were consistent with the findings of earlier studies on nurses' perceptions of barriers to patient teaching.

Many studies discussed in previous sections of this review identified potential barriers within the clinical settings that could hinder or prevent nurses from providing their patients with the patient teaching that they require. Honan et al. (1987) found that owning responsibility for patient education, the priority patient teaching was given and knowledge of how to facilitate patient education were factors that could enhance or hinder nurses in their role as a patient educator. Kruger (1990) found that nurses felt that they need more support from their administrators and more time for patient teaching. Barrett et al. (1990) found that the majority of respondents in their study reported that they did not have enough time or materials for teaching patients. None of these investigations however, have attempted to quantitatively assess the effect of any of these barriers on nurses' actual patient teaching activities.

Time required for patient teaching

In 1983 Bukowski (cited in Stanton 1988) performed an observational study of 30 staff nurses to determine how much time nurses spent on patient teaching. The time nurses spent documenting their patient teaching activities was included in the observations. The majority (43%) of the subjects estimated that they spent 21 - 25% of their time in patient teaching activities." (p.50). To expand upon Bukowski's study Stanton (1988) surveyed 288 registered nurses who were enrolled in a continuing education program. Analysis of the research data indicated that the participants estimated that they spent between 10% and 20% of their time in patient teaching activities. Agre, Bookbinder, Cirrincione and Keating (1990) studied 121 nurse patient interactions over a seven day period to determine how much time was actually spent in teaching patients and their families on an in-patient cancer unit. Nurses were found to have spent an average of 12.5% of their time teaching patients.

Chapter Summary

In summarising the literature on Nursing's commitment to patient education several issues emerge. First, no literature could be found that described an association between either nurses' attitudes or perceptions of their patient educator role and their actual patient teaching behaviours. Second, many studies, based their theoretical frameworks on role theory. The basic assumption was that positive perceptions of the nurse educator role are directly associated with positive attitudes towards patient education and patient teaching. The studies of Stanton (1986) Belise (1990) Kruger (1990) and Bartlett et al. (1990) support this belief. However, a second assumption that positive role perceptions and attitudes are associated with a high level of patient teaching has not been supported. Specific studies have shown that patient education programmes facilitated by nurses have been successful in helping patients deal with a range of health care needs. Nurses' successes in facilitating reduction in anxiety, adaptation to chronic illness, compliance with treatment regimens and the reduction in hospital stays and re-admissions have all been reported in the literature. Many of the studies have shown that nurses perceive certain barriers within the hospital situation that may prevent or hinder them from providing the amount or type of patient education they believe their patients require. There are no reports in the current literature regarding the effect that these barriers have on the nurse's actual patient teaching. No Australian studies on the association of nurses' perceptions on their patient teaching responsibility or their perceptions of barriers in the clinical area to patient teaching and their patient teaching commitment were identified in the available literature.

Chapter Three

Conceptual Framework

This study has employed Ajzen and Fishbein's (1980) theory of reasoned action (TRA) as a conceptual framework to describe the relationship between nurses' attitudes and perceptions of the expectations of significant others and their patient teaching intentions and activities. Additional factors that have been associated with patient teaching have been included in the study's conceptual framework. These factors are perceptions of barriers to patient teaching (barriers), beliefs about the time required for patient teaching (time), the priority patient teaching is given (priority) and demographic characteristics (Barnett et al., 1990; Honan et al. 1988; Stanton, 1986)

Theory of Reasoned Action

The TRA was chosen as a model for this study because of its proven usefulness in describing and explaining volitional behaviours (Ajzen & Fishbein, 1980; Goldenberg & Laschinger, 1991; Laschinger & Goldenberg, 1993; Miller, Wikoff & Hiatt, 1992; Murphy, Maynard & Morgan, 1994; Pender & Pender 1986, and Schmidt, 1981). The TRA takes into account the complexity of attitudinal and social variables of behaviour within the context of motivational-expectancy theory. Motivational-expectancy theories according to Shea (1986) are concerned with describing what directs behaviour towards the accomplishment of some objective, and these theories also suggest how such behaviour can be sustained over time. Motivational-expectancy theory regards people as reacting consciously and actively to their social environment and is thus concerned with conscious choice behaviour.

Ajzen & Fishbein (1980) and Fishbein & Ajzen (1975) have developed the TRA to explain how individuals make decisions about performing specific behaviours. According to this theory, volitional behaviour is predicted from a person's intention to carry out that behaviour. Behavioural intentions are derived from a combination of

personal and interpersonal factors which include personal beliefs and perceptions of the expectations of significant others. Specifically the TRA describes behavioural intention as a function of two factors. The first is an individual's general or global belief that a carrying out the behaviour of interest will result in a favourable or unfavourable consequence (attitude) and the second is the person's general perception of the expectations of significant others about performing the behaviour (subjective norm). The TRA states that when an individual has mainly positive attitudes towards a behaviour and positive subjective norms their intention to carry out that behaviour will be positive and they are likely to perform the behaviour. The TRA further states that a person's attitude towards the behaviour is a function of two "determinants" (Ajzen & Fishbein, 1980, p.62). The first determinant is a person's beliefs that performing the behaviour will have specific favourable or unfavourable consequences (salient beliefs). The second determinant is a person's evaluation that her/his carrying out the behaviour will lead to those consequences (outcome evaluation). Subjective norms are also described as a function of two "determinants" (Ajzen & Fishbein, 1980, p.73). The first determinant of subjective norms is the person's perception of the expectations important others (salient referents) hold regarding the behaviour being carried out which is weighted by the second determinant, which is the person's motivation to comply with those expectations. The descriptive power of the TRA lies in it its ability to identify and relate specific determinants of attitude and subjective norms to intention and behaviour. The overall model is represented in the diagram in Figure 1.

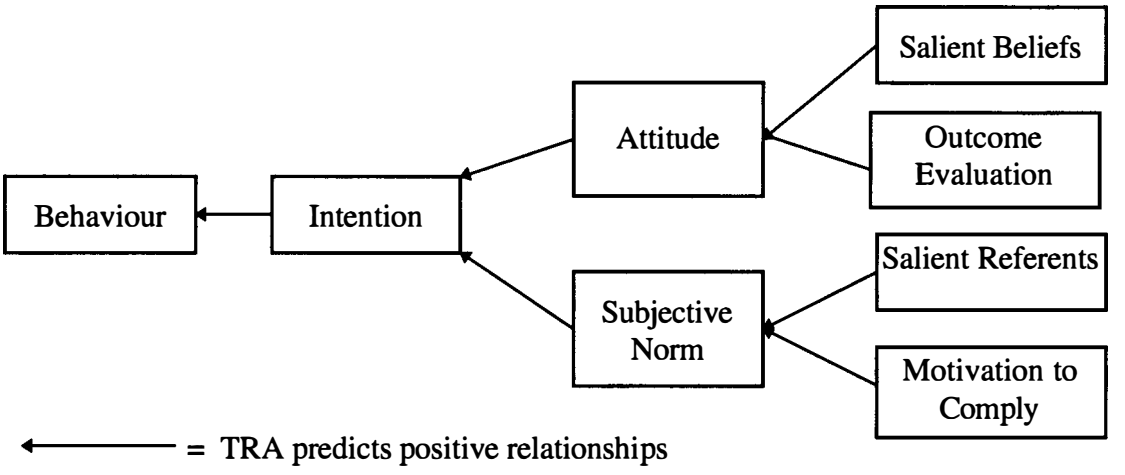

Figure 1. Diagram of theory of reason action.

(Adapted from Ajzen, I., & Fishbien, M. (1980) Understanding Attitudes and Predicting Social Behaviour. Englewood Cliffs, Prentice-Hall, Inc.)

Extension of the theory of reasoned action

As a conceptual model, the TRA has also proved to be adaptable and additional factors have been proposed and tested for inclusion in, or expansion of the TRA. These include personal norms (Fishbein, 1967), moral obligation (Gorsuch & Ortberg, 1983), competing attitudes (Davidson & Morrison, 1983) and perceived behavioural control (Madden, Ellen & Ajzen, 1994). Ajzen and Fishbein (1975) describe these additional factors as external variables and assume that such variables only influence intention to the extent they effect ether attitude or subjective norms. In this present study, barriers to patient teaching, time and demographic characteristics are examined and included in the conceptual framework as external variables.

Limitations of the theory of reasoned action

The ultimate aim of the TRA is to predict behaviours from attitudes and subjective norms (Madden, Ellen & Ajzen, 1992). The ability of the TRA to predict behaviour however, is dependent upon the behaviour of interest being operationally defined as specific observable actions that represent the behaviour of interest. Fishbein, Jaccard, Davidson, Ajzen and Loken (1980) for example, found that women's attitudes and subjective norms towards taking birth control pills were predictors of their family planning intentions and behaviours. The theory has not been equally successful in predicting behaviours which involve multiple composite actions where no single action or group of actions is representative of the behaviour of interest. Health promoting behaviours (Pender and Pender, 1986) and university students' leisure activities (Madden, Ellen & Ajzen, 1992) were not found to be significantly predicted by the TRA.

A further limiting feature of the TRA is the stringent criteria for both defining the behaviour of interest and developing measurement subscales. Ajzen and Fishbein (1980, p. 30, 43) specify that the behaviour of interest must be defined as discrete observable actions or categories of actions. Those authors maintain that each discrete action or category of actions should be itemised in the questionnaire with corresponding measures for intention, attitude and subjective norms. When the behaviour of interest involves numerous actions, as patient teaching does, the resulting questionnaire becomes very complicated and lengthy. Ajzen and Fishbein (1980, p.35) further stipulate that when the frequency with which a behaviour occurs is of interest each potential frequency must be treated as a separate item and addressed in the questionnaire with corresponding items for intention, attitude and subjective norms. This stipulation can also lead to a very lengthy and complicated questionnaire being developed. Finally Ajzen and Fishbein (1980, p37, 45) also recommend that when the priority a behaviour is given is of interest each possible

alternative behaviour must be itemised and examined in relation to the individual's intention to carry out each behaviour. In this study the nurse's intentions and behaviours, the frequency with which nurses carried out patient teaching and the priority it was given were important considerations.

Theory of reasoned action as a descriptive conceptual framework.

Although the TRA has not consistently predicted all types of volitional behaviours, it has proved to be useful as an explanatory and descriptive conceptual framework (Schmidt, 1981; Murphy, Mainyard & Morgan 1994). It has been used to describe health promoting behaviours (Fishbein, 1993; Jacard & Davidson, 1980; Miller Wickoff, McMahon, Garret & Ringel, 1980, 1984, 1988; Pender & Pender, 1986). The TRA has not been used to describe nurses' patient teaching behaviours, but it has been successfully adapted to describe nurses' intention to document patients care (Schmidt,1980) nurses' attitudes towards computerised patient care information systems (Murphy, Maynard & Morgan 1994) and nurses' intention to provide care for patients who are infected with the human immunodeficiency virus (Goldenberg & Laschinger and 1991, Laschinger & Goldenberg, 1993).

Study's Conceptual Framework

The focus of this study is to establish a current picture of Western Australian nurses' patient teaching activities and to gain an understanding of the factors that may enhance or hinder them in carrying out those activities. However, the constructs of TRA and the proposed and assumed relationships between those constructs form the basis of the conceptual framework for this study. The study therefore will also test the potential of the TRA to predict nurses' patient teaching behaviours.

The components of the study's conceptual framework

Fishbein and Ajzen (1975) specify that measures for behaviour and intention attitude and subjective norms must correspond in magnitude and specificity. That is, all the major constructs included in the study must clearly refer to the same behavioural actions. A preliminary study was conducted to establish of a definition patient teaching that was recognised by Western Australian nurses as an accurate description of their patient teaching activities (See Chapter 4). The majority of the nurses who responded to the survey reported that their patient teaching included formal and informal teaching and coaching activities which allowed them to help their clients to learn new knowledge, gain understanding and/or acquire skills. It is accepted that this definition is a general description and it does not specify discrete observable actions and fails to meet the TRA operational criteria for specificity of behavioural actions. The study's ability to predict patient teaching behaviours from attitudes and subjective norm is consequently diminished. This study will test the utility of the TRA for describing and predicting a function of the nurse's role that involves multiple behaviours. To do this the relationships between all the components of the TRA will be examined to test the assumptions of the model for this type of behaviour.

Behavioural intention is defined in the study to correspond with the definition of behaviour. That is, the nurse's intention to carry out formal and informal teaching and coaching activities that allow them to help their clients to learn new knowledge, gain understanding and/or acquire skills. Attitude is the nurse's favourable or unfavourable evaluation of performing those patient teaching activities. Subjective norm is the nurse's beliefs that significant others believe he/she should or should not carry out those patient teaching activities. The salient beliefs were those beliefs about the consequences of patient teaching Western Australian nurse nominated as

important. The salient referents were individuals nominated by Western Australian nurses as important referents for patient teaching.

The study primarily addressed three questions concerning the relationships between nurse's patient teaching behaviours, intentions, attitudinal beliefs and subjective norms. The first question addressed the relationship between nurses' intention to carry out patient teaching and their actual patient teaching activities. This question also addressed the validity of the TRA assumption that "behaviours of social relevance ... are predictable from intentions" when the behaviours of interest was the formal and informal activities that allow the nurse to help clients to learn new knowledge, gain understanding and/or acquire skills (Ajzen and Fishbein,1980, p.41). The second and third questions were concerned with establishing whether nurse's attitudinal beliefs and normative beliefs were related to their patient teaching intention and behaviours. These questions also addressed the TRA condition that an individual's attitudes and subjective norms about a specific behaviour are determinants of intention to carry out that behaviour (Ajzen and Fishbein,1980, p.76). A further condition of the TRA to be tested in this study is that "a set of behavioural beliefs do predict the attitude towards the behaviour and a set of normative beliefs are predictive of the subjective norm" (Ajzen and Fishbein, 1980 p.76). In this study behavioural beliefs refers to nurses' salient beliefs weighed by their evaluation that his/her patient teaching will have those outcomes. Normative beliefs refers to the nurse's perception of their salient referents weighed by their motivation to comply with theses people. The components and relationships examined in this study are represented in Figure 2.

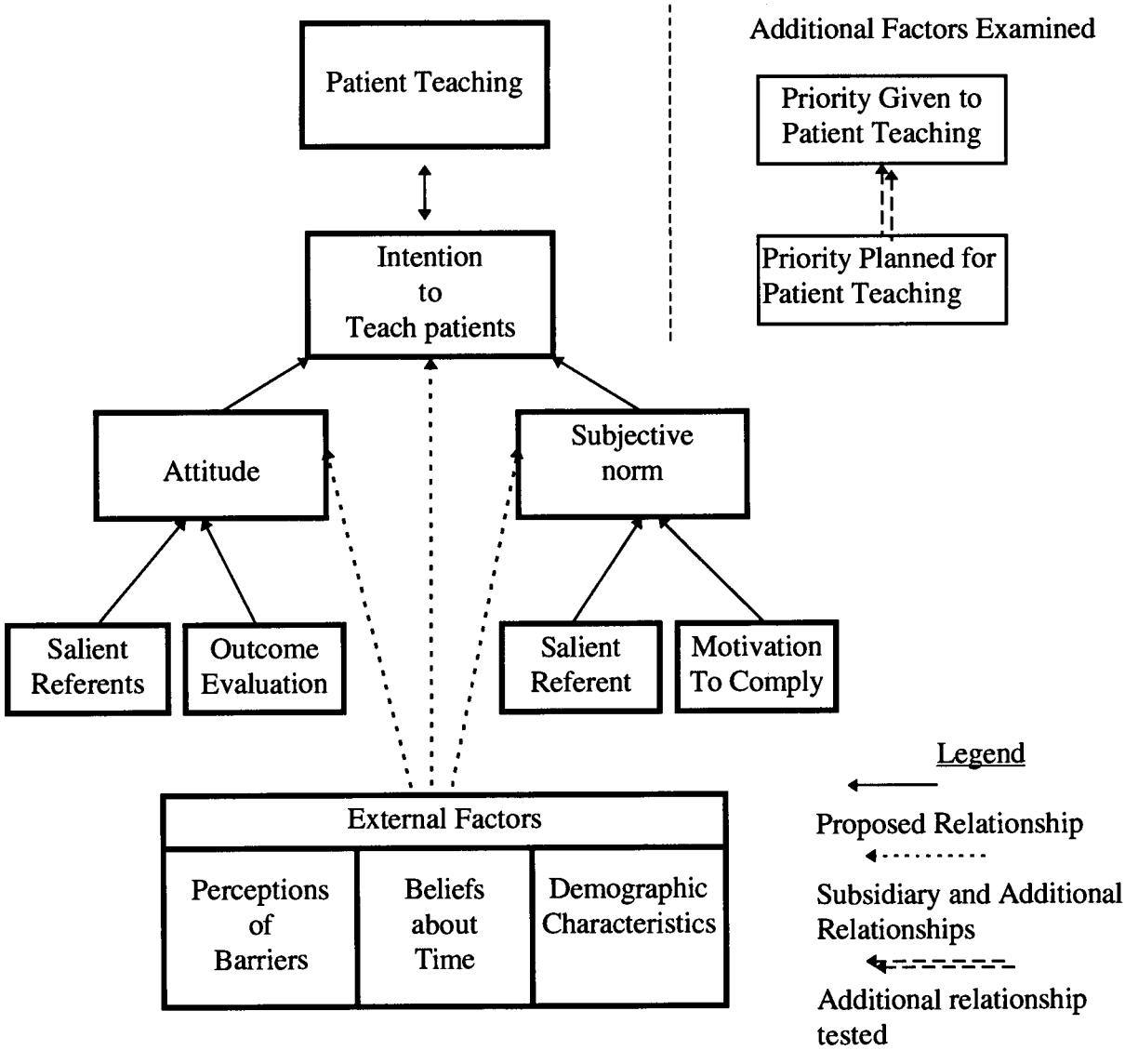

Figure 2.
Conceptual framework: - Factors associated with nurse patients' teaching behaviours

Based on the predictors constructs proposed in Ajzen and Fishbein's theory of reasoned action the following hypothesis are proposed to address the primary questions of this study:

$H_{(R)}$ 1 There is a positive relationship between nurses' intentions to carry out patient teaching and the performance of patient teaching activities.

$H_{(R)}$ 1. There is a positive relationship between nurses' intentions to carry out patient teaching and their attitudes towards patient teaching.

$H_{(R)}$ 3. There is a positive relationship between nurses' intentions to carry out patient teaching and the subjective norms for patient teaching.

$H_{(R)}$ 4. There is a positive relationship between nurses' attitudes towards patient teaching and their behavioural beliefs about patient teaching.

$H_{(R)}$ 5. There is a positive relationship between nurses' subjective norms for patient teaching and their normative beliefs about patient teaching.

Subsidiary questions addressed the relationships between nurses' behaviours and intentions attitudes and subjective norms relating to their patient teaching and their perceptions of barriers to patient teaching and their beliefs about spending time on patient teaching. A final question sought additional information on the importance nurses gave to patient teaching by examining the priority nurses gave patient teaching when planning and providing patient care.

Chapter Four

Methodology

Design

This non experimental study follows a descriptive, correlational design recommended by Ajzen and Fishbein (1980). Data collection was by self administered questionnaire survey. The development of the study's questionnaire was also guided by Ajzen and Fishbein's (1980) recommendations.

Sample

Subjects selected for this study were nurses, employed at three study hospitals, who met the selection criteria. Study participants were, therefore, from a non random convenience sample. Criteria for selection included nurses who were:

1. Employed as level 1 registered nurses and level 2 clinical nurses.
2. Employed in acute medical and/or surgical wards or coronary care units.
3. Employed on day, afternoon and night duty in rotation or day and/or afternoon shifts.
4. Not specifically employed as patient educators.
5. Not presently on annual leave, on extended sick leave, or on workers' compensation.

Once approval was given by each hospital's management the questionnaires were distributed at each hospital by the hospital's nursing administration. Questionnaires were distributed to 450 nurses and 181 (40.2%) questionnaires were returned completed and included in the study. Only those respondents who

completed more than 90% of the questionnaire were included in the final data analysis. Twelve incomplete questionnaires were rejected.

Setting

The study was conducted at three acute care hospitals in the metropolitan area of Perth Western Australia. One hospital was a Western Australian State Government facility and the other two were privately managed hospitals. These hospitals all provided acute medical, acute surgical and coronary care services.

Ethical Considerations

Consent for this study was granted by the Ethics Committee of Edith Cowan University and from the ethics committees at each study hospital. The cover page of each questionnaire advised the subjects of the basic purpose of the study and the approximate time it would take to complete the questionnaire. (See Appendix D). Subjects were further advised that that their participation was completely voluntary, they had the right to refuse to participate and confidentiality would be maintained (see Appendix A).

All lists of names supplied by the hospitals were destroyed before the data were recorded and analysed. No record was kept to identify which questionnaire had been given to each respondent. Each participant was given a sealable envelope pre-addressed to the researcher. Consent from the participants was implicit in their voluntary return of the questionnaires in sealed envelopes. The data for this study will be stored in a secure place for 5 years and then incinerated or shredded.

Instrumentation

The instrument for this study was a self administered questionnaire that included sub scales designed to measure the constructs of the theory of reasoned action (TRA). These constructs were: nurses' patient teaching behaviours, intention to teach patients, attitudes towards teaching patients and their subjective

norms of patient teaching. Additional items were included in the questionnaire to measure nurses' perceptions of barriers to patient teaching, their estimation of the value of spending time patient teaching, the priority nurses gave to patient teaching and their demographic characteristics.

TRA constructs were measured with subscales developed according to guidelines described by Ajzen and Fishbein (1980). The items relating to demographic characteristics contained in Section A of the questionnaire were adapted from instruments developed and tested by Stanton (1986) and Honan et al. (1987). Measures of the priority nurses gave to patient teaching were adapted from an instrument developed and tested by Honan et al. (1987). Permission to use and adapt items from the original instruments was granted by the authors of these instruments. The only changes made were to substitute terminology that may not have been familiar to Western Australian nurses.

Patient teaching behaviours

The initial phase of instrument development was concerned with establishing an operational definition of nurses' patient teaching behaviour. Fishbein and Ajzen (1975) specify that measures of intention, attitude and subjective norms must correspond in magnitude and specificity with the measure of behaviour. That is, all the major constructs included in the study must clearly refer to the same behavioural actions, time and place.

A preliminary study was conducted to establish a definition of patient teaching that was recognised by Western Australian nurses as an accurate description of their patient teaching activities. This survey also served to elicit Western Australian nurses' behavioural beliefs and salient referents for patient teaching. The review of the literature showed that three alternative descriptions of the nurse's patient teaching activities have been employed in nursing studies on patient education (see Chapter 2). These definitions are summarised as follows:

1. Patient teaching is the implanting of information.
2. Patient teaching is a formal planned process involving assessment, planning, implementation and evaluation.
3. Patient teaching and coaching involves both formal and informal activities that allow the nurse to help clients to learn knowledge, gain understanding and/or acquire skills.

A non random convenience sample of 50 Western Australia nurses was surveyed to determine which of the above definitions were recognised by them as a reasonable description of their teaching activities. These nurses, who had responded to a request for volunteers to participate in a preliminary survey, were students enrolled in a Bachelor of Nursing conversion course at Edith Cowan University. All nurses included in the sample met the study criteria. The nurses were informed verbally and in writing of the purpose of both the preliminary survey and the proposed study and advised of their rights as study subjects. (See Appendix B, p.1) The nurses were asked to complete a questionnaire by ranking four possible descriptions according to how they felt each description best described their current patient teaching behaviours (see Appendix B, Part A). The majority of the nurses who responded to the survey ($\underline{n}$ = 29, 58%) reported that their patient teaching included formal and informal teaching and coaching activities that allowed them to help their clients to learn new knowledge, gain understanding and/or acquire skills. Details of the rankings and means are presented in Table 1. This definition was found to be too cumbersome to incorporate into the items in the questionnaire and the term teaching and/or coaching was used throughout instead. Participants to the main study were informed in the introduction to the questionnaire that the term teaching and/or coaching referred to those formal and informal activities that allow the nurse to help clients to learn new knowledge, gain understanding and/or acquire skills (see Questionnaire, p.1, Appendix E).

Table 1

Preliminary Survey of Respondents' Ranking of Definitions of Patient Teaching According to Best Description of their Patient Teaching Activities

Description of patient teaching activity	Rank
My patient teaching activities involve both formal and informal teaching activities that allow me to help the client to learn new knowledge, gain understanding and/or acquire the health care skills they need.	1
My patient teaching activities are mostly based on formal assessments of the patient's learning needs, and are implemented and evaluated according to a teaching plan of a patient education programme.	2
My patient teaching activities are mostly directed towards providing patients with information.	3
Nurses usually do not provide patient teaching in my clinical area.	4

One measure of actual teaching behaviour was included in the questionnaire to assess the absolute frequency with which nurses carry out patient teaching. Measures of absolute frequency according to Ajzen and Fishbein (1980, p.37) determine the number of occasions a person performed the behaviour of interest in a given period. Ajzen and Fishbein (1980) further recommend that such measures can be obtained by "treating alternative frequencies as a multiple choice amongst alternatives where each alternative represents a single frequency" (p.37). To obtain this measure nurses were asked to respond to the statement "During the last five days I worked I provided patient teaching and coaching", on a seven point scale of patient teaching frequencies ranging from nil to more than once a day (see Questionnaire, Item 34).

Ajzen and Fishbein (1980) point out that while direct observations of behaviour are usually considered preferable, self reports of behaviour have certain advantages regarding time, cost and effort. Also, behaviours that involve various actions, such as patient teaching, can be difficult to observe in a clinical setting where patients' privacy is a prime consideration. Biddle (1979, p.82) stated that self reports on role behaviour "are a fair reflection of those behaviours that have actively occurred" and that "most of what we know about roles to date have been gathered by this technique". Therefore, it was considered that the use of a retrospective self report would provide a fair description of nurses' patient teaching activities.

Intention to teach patients

Two measures of intention to teach patients were included in the questionnaire. The first item directed nurses to respond to the statement "during the next five shifts I work I intend to teach and/or coach patients" on a seven point Likert scale (extremely likely / extremely unlikely). This item was developed according to Ajzen and Fishbein's (1980) recommendation that measures of intention should specify behavioural actions and time (see Questionnaire, Item 2). The second item was concerned with measuring the absolute frequency of patient teaching that nurses intended to provide their clients. Ajzen and Fishbein (1980, p37) state that the frequency a person intends to carry out a behaviour is also an important consideration in determining if that behaviour will occur. In this study frequency of intention is treated as an alternative measure of intention. The measurement for frequency of intention corresponds with the measurement of behaviour (see Questionnaire, Item 3). The two measurements for intention to teach patients were included to provide descriptive data about Western Australian nurses' patient teaching activities and intentions that were not currently available.

Attitude

Two measures of attitude were constructed according to Ajzen and Fishbein's (1980) guidelines for instrument development. The first measurement is a global (direct) measurement of nurses' attitude about the possible consequences of patient teaching in their clinical areas. For this measure, nurses were asked to respond to the statement "My teaching and coaching patients in my clinical setting is - " on a 3 item, 7 point semantic differential consisting of the bi polar evaluation adjectives good versus bad, wise versus foolish and harmful versus beneficial (see Questionnaire, Item 4). The direct measurement for attitude was obtained by summing the scores of the three semantic differentials for each respondent. The reliability and validity of these adjectives as semantic differentials have been established by Osgood, Suci and Tannenbaum (1971).

The semantic differentials used for the direct measure of attitude provide general information as to whether attitudes are favourable or unfavourable. They do not provide specific information about beliefs or values that determine those attitudes (Ajzen and Fishbein 1980). The direct measure of attitude therefore does not show whether nurses attitudes are related to their beliefs about their personal competency in patient teaching or their beliefs that patient teaching is generally a useful and worthwhile activity. The indirect measure of attitude has been included in the questionnaire to provide more detailed information about nurse's specific beliefs and values related to patient teaching (salient beliefs). Salient beliefs were considered to be the product of two factors. The first factor (outcome evaluation) related to how strongly the nurse believed patient teaching would have specific beneficial or possibly harmful outcomes. The second factor (belief strengths) was concerned with the strength of the nurses' beliefs that their own teaching would or would not lead to those outcomes.

The salient beliefs included in this study were identified in the preliminary survey. Nurses were asked, in the preliminary survey, to list both the advantages and disadvantages or anything else they associated with patient teaching in their clinical areas (see Appendix B, Part B). The responses were itemised and organised into a set of behavioural beliefs that represented those nurses' most commonly held beliefs about the outcomes of patient teaching. Responses that referred to similar outcomes were then grouped together. For example, the belief that patient teaching helps patients manage their own care, the belief that patient teaching helps patients participate in their own care and the belief that patient teaching helps patients to self care were treated as referring to the same outcome and grouped together. The outcomes were then ranked according to the number of times each had been elicited. Only those outcomes suggested by two or more nurses were included in the set. The salient beliefs identified in the preliminary survey are presented in Table 2.

The set salient beliefs obtained from this survey all relate to benefits that patients will receive from nurses' patient teaching activities. Fishbein & Ajzen (1975) point out that where there is a question about whether a behaviour will be carried out there is an expectation that people will have negative and positive beliefs about the usefulness of that behaviour. Those authors further suggest that when only positive salient beliefs about a behaviour of interest are elicited it can be assumed that the population of interest will also have positive attitudes towards that behaviour. Therefore these salient beliefs were included in the study's questionnaire to confirm the applicability of the findings of the preliminary survey in acute clinical settings with a larger and more diverse population of nurses.

Table 2

Salient Behavioural Beliefs Identified in the Preliminary Study

Outcome Evaluation	Frequency
Teaching and coaching patients helps them to;	
Manage and/or participate in their own care,	22
Adapt to their altered health status,	12
Reduce anxiety,	8
Comply with their treatments,	8
Prevent re-admissions,	4
Shorten the time they spend in hospital,	2

Six items based on the above beliefs were constructed to measure nurses' outcome evaluation of patient teaching. In these items, nurses are asked to evaluate each outcome of patient teaching on a seven point Likert scale by indicating how strongly they believed the stated outcome would be either harmful or beneficial (see Questionnaire, items 5 to 11).

Measurements for nurses' belief strengths were constructed to correspond with each outcome evaluation. For these items, nurses were asked to respond on a seven point Likert scale by indicating how strongly they believed their own patient teaching was likely or unlikely to lead to each outcome (see Questionnaire Items 11 to 16).

Subjective norms

Direct and indirect measures of subjective norms were also constructed according to Ajzen and Fishbein's (1980) guidelines. Direct subjective norms were considered to be the product of two factors. The first factor, normative beliefs, was addressed with an item containing the general statement "Most people who are important to me think I should teach and coach patients" and a seven point Likert scale with ends of extremely likely and extremely unlikely. The second factor, motivation to comply, was addressed with the general statement "Generally

speaking I want to do what people who are important to me think I should" and a seven point Likert Scale from extremely likely to extremely unlikely.

The indirect measure of subjective norms consisted of two sets of corresponding items. One set of items identified seven salient referents (types of individuals) who had been nominated as important referents for patient teaching by nurses in the preliminary survey. Nurses were asked to indicate on a seven point scale whether each referent was likely or unlikely to think they (the subject) should teach and coach patients in their clinical area (see Questionnaire, items 18 to 24). The second set of indirect subjective norms' items measured nurses' desire to comply with each of the salient referents (see Questionnaire, items 27 to 32).

The salient referents included in the questionnaire were identified in the preliminary survey. Nurses taking part in this survey were asked to list those individuals or groups who they believed would approve or disapprove of them teaching patients in their clinical areas (see appendix B Part C). Ajzen and Fishbein (1980) recommend that only the most frequently mentioned individuals and groups be included in the list of salient referents for this study. In this study, all referents nominated by two or more nurses were included in the list of salient referents (see Table 3).

Table 3

Salient Referents for Nurses' Patient Teaching

Salient referent	Frequency
Patients	15
Peers	14
Patients' relatives (Significant Others)	10
Clinical nurse specialist	9
Medical staff	5
Staff development nurse	4
Allied health professionals	4

Barriers to patient teaching

Ajzen and Fishbein (1980) suggest that intention will only predict behaviour if other events or circumstances do not preclude or prevent the behaviour occurring. For this study, potential barriers to patient teaching were identified from the review of literature. Thus, potential barriers were used as the basis for items in the questionnaire. These barriers were as follows:

- Patients do not remain in the clinical setting long enough to benefit from patient teaching (Lipetz,et al. 1990).
- Patients' conditions are often such that teaching and coaching would be inappropriate (Lipetz, et al.).
- Lack of resources in my clinical area prevents me from teaching and coaching (Barrett et al. 1990).
- Clinical area is not a suitable environment for teaching and coaching (Lipetz, et al.).

Respondents were asked to indicate on a seven point Likert scale how strongly they believed each of these statements was likely or unlikely to apply in their clinical areas.

Time

In the preliminary survey three participants provided additional comments indicating that they believed patient teaching was a time consuming activity. Two others however, included statements indicating that they found patient teaching was a time effective activity because teaching patients to care for themselves allowed the nurse more time for other activities. Analysis of the preliminary survey data however, showed that nurses' perceptions of whether patient teaching was a time consuming or time effective activity could not be assumed to be an indication of whether they had favourable or unfavourable beliefs about the value of patient

teaching. For example, those nurses who stated that patient teaching was a time consuming activity also identified many favourable outcomes of patient teaching. Alternatively, nurses who indicated that patient teaching was a time effective activity restricted their beliefs about the advantages of patient teaching to statements about patient teaching helping the patient become more involved in their own care. The decision was made not to treat nurses' belief about the time required for patient teaching as a salient behavioural belief, because it was unclear whether those beliefs related to a potential outcome of patient teaching or were simply comments on the process of patient teaching. The element of time, however, was included in the conceptual framework and questionnaire as an independent factor.

Two items relating nurses' beliefs about spending time on patient teaching were included in the questionnaire. The first item asked nurses to indicate on a seven point bi- polar scale whether they believed patient teaching was either a time consuming or a time effective activity (see Questionnaire, Item 36). The other item was included to provide additional descriptive data and asked nurses to nominate what percentage of their time they believed should be spent in patient teaching (See Questionnaire, Item 35).

Procedure

Pilot study

A pilot study was undertaken to pre test the survey instrument for reliability and validity, to measure the instrument readability and utility and to ensure that coding and entry methods were both accurate and efficient. Forty registered nurses who were enrolled in a Bachelor of Nursing conversion course at Edith Cowan University volunteered to participate in the pilot study. These participants were asked to complete the questionnaire and upon completion to specify in writing at the end of the questionnaire any difficulty they found in completing the

questionnaire. Entry and analysis of the pilot study data was undertaken to ensure that the data was in a useable form and that the data sheets were accurate and efficient.

Reliability and validity

The face and content validity of the questionnaire were assumed for questionnaire items that were derived from the relevant literature. The completed instrument was subsequently reviewed by four senior nurses, with experience in patient education and nursing administration, who verified the appropriateness of the content. These experts and the nurses pre-testing the questionnaire were asked to make suggestions as to deletions or additions of items and organisation of the instrument. Only minor modifications were made as a result of their suggestions.

Cronbach's alpha coefficient was employed to examine the consistency of the study's measurement techniques for the items relating to the TRA constructs the potential barriers to patient teaching. The subscales and the composite score for the direct measurement of attitude produced an alpha coefficient of .79. The alpha reliability estimates for behavioural beliefs, outcome evaluation and the composite indirect attitude scores were .82, .81 and .85 respectively. The alpha reliability estimates for the salient referents' expectations, motivation to comply and the composite indirect subjective norm subscales were .77, .75 and .76 respectively. The alpha reliability coefficient for the four items that measured barriers to patient teaching was .5. These items were retained in the questionnaire but each item was treated as a measurement of separate factors.

Data collection

Questionnaires were distributed to all nurses who met the study criteria in each of the three hospitals. Responsibility for the distribution and collection of questionnaires was undertaken by the hospitals' nursing administration or research

staff. Each nurse was sent a questionnaire with a covering letter and a sealable envelope that was addressed to the researcher care of either the hospital's administration or research department. Respondents were directed to return the questionnaires by way of their hospital's internal mail. Two weeks following the initial distribution of questionnaires a reminder was sent to all potential participants asking them to complete and return the questionnaires (see Appendix C). Further reminders were included in the hospitals' newsletters and posted on notice boards. Time, funding and administrative constraints prevented any further action to follow up subjects who did not return questionnaires.

Assumptions

In this study it was assumed that nurses would provide an accurate recall of their patient teaching activities during the last five shifts they worked and report this in the questionnaire. To the extent that nurses who participated in this study are typical of other clinical nurses, the findings have implications for all nurses involved in the direct care of patients.

Chapter Five

Results

The study findings are presented in relation to the objectives and questions identified in chapter one. These findings are organised under the following headings: description of the sample, relationships between the constructs of the TRA, the realtionships between the constructs of the TRA and external variables and the comparison of the priority given to patient teaching when planning patient care and providing patient care.

Data analysis was carried out using the Statisical Package for Social Science for Windows verson (SPSS). Screening for missing data was carried out using a checklist described by Tabachnick and Fidell (1989, p.88). Six questionnaires with one item missing a response were identified. In each instance the missing value for the item was estimated by awarding the item the mean score for that variable (Tabachnick & Fidell 1989, p.60). Using the same checklist all variables were also checked for skewness and kurtosis. The distribution of scores was found to be skewed in most variables examined and therefore. Outlier analysis and transformation of the variables did not prove to be effective in correcting skewness. Non parametric tests were used to analyse associations between the variables[1]. In all cases the alpha level was set at .05.

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[1] The data from this study do not meet the assumptions for parametric analysis of correlation or multiple regression described by Burns & Grove (1986, p. 533) and Tabachnick and Fidell (1989, p. 8) for the following reasons:

The dependent variable, frequency of intention, scores did not come from a normal distribution.

The scores for frequency of intention could not be shown to be equally dispersed about the best line of fit for attitude or subjective norms.

Description of the Sample.

Nurses' demographic characteristics

The nurses' ages ranged from 21 to 52 years of age (M = 32.5, SD = 8.8). Their nursing experience ranged from one to 30 years (M = 9.3, SD = 7.5). As shown in Table 5. 1, the majority of the nurses were level 1 nurses in full time employment and 81% worked a variety of shifts. Most nurses had gained their basic nursing qualification in hospital based training programmes. The details of the frequencies for these demographics are presented in Table 4.

Table 4

Frequencies for Clinical Level, Work Status, Work Pattern and Nursing Education.

Variable	n	%
Clinical level		
1	136	75.7
2	45	24.3
Work status		
Full time	117	64.6
Part Time	62	34.2
Casual	2	1.2
Work pattern		
Full rotation	148	81.8
Afternoons	16	8.9
Weekends	12	6.6
Day shifts	5	2.7
Education		
Hospital training	92	50.3
Tertiary institution	68	37.6
Post basic tertiary	21	11
Qualification		

Patient teaching activity

One direct measure of nurses' patient teaching behaviour was included in the questionnaire. Subjects were asked to report the frequency of their patient teaching activities by indicating the number of times they had provided patient teaching during the previous five shifts they had worked (see Questionnaire, Item 34, Appendix E). Of the 181 nurses the majority (n = 137, 75.6%) reported that they had provided patient teaching at least once a day. Two nurses reported that they had not carried out any patient teaching during the last five shifts they had worked.

Intention to teach patients

Two measures of nurses' intention to teach patients were included in this study. The first measure was the strength of nurses' intention to teach patients during the next five shifts worked (see Questionnaire, Item 2). The second measure was the frequency nurses intended teaching patients during the next five shifts they worked (see Questionnaire, Item 3). For this item 170 (94%) of the nurses reported that it was either quite likely or extremely likely that they would teach patients during the next five shifts they worked. A smaller number (n =140, 77%) reported that they intended teaching patients at least once each shift. Only two nurses reported that they did not intend to teach patients during the next five shifts worked. The distribution of scores for strength of intention differed from the other variables in that there was an exceptionally large degree of skewness and a large kurtosis with 94% of the scores falling within two cells. This item was therefore excluded from further data analysis and the alternative measure of intention (frequency of intention) was used The mean, standard deviation and ranges of scores for patient teaching activity, strength of intention and frequency of intention are presented in Table 5.

Table 5

Mean, Standard Deviation and Range for Intended and Actual Teaching of Patients

Variable	Mean	SD	Actual range	Possible range
Intention to teach				
strength	2.43	.79	-3 to +3	-3 to +3
frequency [a]	5.7	1.7	1 to 7	1 to 7
Teaching frequency [a]	5.8	1.5	1 to 7	1 to 7

Note [a] Frequency = the number of times nurses intended and provided patient teaching where 1 = nil and 7 = more than once a shift.

Direct measure of attitude

A global (direct) measurement of nurses' attitude towards their teaching was included in the questionnaire. For this measurement attitude was measured on three semantic differentials; good versus bad, wise versus foolish and harmful versus beneficial. For each differential a seven point sub scale ranging from -3 to +3 was employed (see Questionnaire, Item 4). Most nurses (n = 99, 55%) reported that they believed their patient teaching was quite good, and (n = 92, 50.8%) reported that teaching was quite wise. For the third differential 115 nurses (64%) reported that they believed their teaching was extremely beneficial. Only one nurse recorded a belief that teaching patients was neither beneficial nor harmful. No nurse believed her or his own teaching would be bad, foolish or harmful.

The direct measurement for attitude was obtained by summing the scores of the three semantic differentials for each nurse. Most nurses (n = 126, 69.6%) scored 7 or above from a possible range of scores of -9 to +9. The mean, standard deviation and range of scores for three semantic differentials and direct attitude are detailed in Table 6.

Table 6

Mean, Standard Deviation and Range of Scores for Attitudinal Semantic Differentials and Direct Measure of Attitude

Semantic scales	M	sd	Actual range	Potential range
Teaching patients is bad (-3) or good (+3)	2.4	.5	1 to 3	-3 to +3
Teaching patients is foolish (-3) or Wise (+3)	2.4	.6	1 to 3	-3 to +3
Teaching patients is beneficial (+3)or harmful (-3)	2.6	.5	0 to 3	-3 to +3
Attitude [a]	7.4	1.3	3 to 9	-9 to -9

Note *a* Attitude = sum of the scores for the three semantic differentials

Indirect measurement of attitude

An alternative (indirect) measurement of attitude was included in the questionnaire to provide more detailed information about nurses' attitudes towards teaching patients. This information was provided by examining nurses' salient behavioural beliefs (salient beliefs) about patient teaching. Salient beliefs were considered to be the product of two factors. The first factor (outcome evaluation) related to how strongly the subjects believed the specified outcomes would be a beneficial or possibly a harmful outcome of teaching patients. The second factor (belief strengths) was concerned with the strength of the subjects' beliefs that their own teaching would or would not lead to those outcomes. The six salient beliefs considered in this study are listed in column 1 of Table 7. Subjects were asked to record their outcome evaluation and belief strengths for each outcome evaluation on seven point sub scales (see Questionnaire, Items 4 to 15). Most nurses reported that they believed the specified outcomes of patient teaching would be extremely

beneficial. Similarly, the majority of nurses reported that they believed their teaching was extremely likely to lead to those outcomes.

Examination of the means for each salient belief, that is the product of outcome evaluation and belief strength, showed that nurses generally held strong beliefs that their teaching helped patients to manage and/or participate in their own care. Also the nurses who responded believed that the outcome was a valuable one. The means for outcome evaluations, belief strengths and salient beliefs are presented in ranked order in Table 7.

The sum of the scores for the six salient beliefs provided an alternative score for attitude. The results of this measurement showed that the nurses' attitudes were uniformly positive.

Table 7

Ranked Means for Outcome Evaluations, Belief Strengths and Salient Beliefs

Salient belief	Outcome [a] evaluation *mean*	Belief [b] strength *mean*	Product [c] *mean*	Rank
Teaching and coaching patients to help them to:				
Manage and/or participate in their own care,	2.87	2.77	7.96	1
Adapt to their altered health status,	2.89	2.71	7.85	2
Reduce anxiety,	2.86	2.63	7.54	3
Comply with their treatments,	2.76	2.54	7.04	4
Prevent re-admissions,	2.69	2.43	6.56	5
Shorten the time they spend in hospital.	2.56	2.17	5.59	6

Note *a*. Actual range, 1 to 3, possible range -3 to +3.

b. Actual range, 0 to 3, possible range -3 to +3.

c. Actual range 1 to 9, possible range -9 to +9

In this study the direct and indirect measurements of attitude were found to be significantly correlated, r_S (N,181) = .78, $p < .00$. The implication of this finding is

that the direct measure of attitude which was a global measure was empirically related to the indirect measure which was a measure of a set of personal beliefs.

Direct measure of subjective norms

Two items were included in the survey to determine whether nurses generally perceived their subjective norms as a positive or negative influence on their teaching patients activities. Subjective norms were considered to be the product of two factors. The first, the normative belief, was concerned with the nurses' perception of whether most people who were important to them (their salient referents) thought they should or should not teach patients (see Questionnaire, Item 17). The second factor was the nurses' motivation to comply with their salient referents (see Questionnaire, Item 25). Most nurses ($\underline{n}$ = 174, 96%) reported that they believed their salient referents believed they should teach patients. A smaller majority ($\underline{n}$ = 141, 78%) reported that they were motivated to comply with their salient referents. The scores for subjective norms, that is the product of normative belief and motivation to comply, showed that most of the nurses ($\underline{n}$ = 141, 78%) perceived the subjective norms positively. A substantial minority of nurses ($\underline{n}$ = 40, 22%) reported that subjective norms were either not an influence or that they were a negative factor. The distribution scores for this variable therefore differ from intention, actual teaching and attitude. Details of the means, standard deviation, and range of scores for normative beliefs, motivation to comply and subjective norms are presented in Table 8.

Table 8

The Direct Measure of Subjective Norms of Teaching Patients - Mean, Standard Deviation, and Range of Scores

Factor	M	SD	Actual range	Potential range
Normative belief	2.2	0.9	-3 to +3	-3 to +3
Motivation to comply	1.5	1.3	-3 to +3	-3 to +3
Indirect subjective norms [a]	3.3	3.2	-9 to +9	-9 to + 9

Note [a]. Subjective norms = the product of normative belief and motivation to comply

Indirect measurement of subjective norms

As an alternative (indirect) measurement for subjective norms nurses were also asked to report on their normative beliefs and motivation to comply with specific salient referents (see Questionnaire, Items 18 to 24 and Items 26 to 32). The seven salient referents considered are listed in column 1 of Table 8. Most nurses reported that they believed all seven salient referents wanted them to teach patients and that they were motivated to comply with those people. Examination of the ranked means for salient referent scores showed that clinical nurse specialists and staff development nurses were rated first and second for both normative belief and motivation to comply. Medical Staff and patients' relatives were rated last and second last as salient referents for teaching patients (see Table 9).

The sum of the scores for the seven salient referent scores provided an alternative measure for subjective norms. The results of this measurement showed that the nurses' perceptions of the subjective norms were mostly positive. The direct measure of subjective norms was found to be significantly correlated to the indirect

measurement r_S (N, 181) = .74, $p < .00$. Therefore it can be concluded that the two measures of subjective norms were empirically related as hypothesised in the study's conceptual framework.

Table 9

Salient Referents of Registered Nurses for Patient Teaching

Salient referent	Normative belief mean [a]	Motivation to comply *mean* [b]	Product [c]
1. Clinical nurse specialist	2.59	1.91	5.35
2. Staff development nurse	2.72	1.82	5.15
3. Patients	2.15	1.72	3.92
4. Peers	2.32	1.51	3.77
5. Allied health professionals	2.15	1.35	3.27
6. Patients' relatives (significant others)	1.99	1.44	2.98
7. Medical staff	1.87	1.34	2.91

Note [a] Range Actual -3 to +3, possible -3 to +3.
[b] Range Actual -2 to +3, possible -3 to +3.
[c] Range Actual -9 to +9, possible -9 to +9

Potential barriers to patient teaching

Questions were included in the survey to determine if nurses perceived any barriers in their clinical areas that were likely to prevent them from teaching patients. Four potential barriers to teaching patients in acute clinical settings, that had been identified in a preliminary survey, were examined (see Chapter 3). The potential barriers were that: patients do not remain in the area long enough for teaching to be effective, the patients' condition prevented teaching, lack of resources in the clinical area prevented teaching patients, and the clinical area was an unsuitable environment for teaching patients.

Most nurses reported that they did not find any of these four potential barriers to be a likely impediment to their teaching patients. The means of the potential barriers are presented in rank order in Table 10.

Table 10

Ranked Means and Range of Scores of Barriers to Teaching Patients

Barriers to patient teaching	Mean	Possible range
1. Clinical area is an unsuitable environment for teaching and coaching	6.29	1 to 7
2. Lack of resources prevents teaching and coaching	5.97	1 to 7
3. The patient's condition prevents coaching and teaching	5.75	1 to 7
4. Patients do not remain in the clinical area long enough for teaching and coaching to be effective	5.31	1 to 7

Nurses' beliefs about spending time on patient teaching.

It was also of interest in this study to examine nurses' beliefs about spending time on patient teaching. Two items were included in the questionnaire to address this factor. The first item was concerned with determining the degree to which nurses believed patient teaching was either a time consuming activity or a time effective activity. The second measurement was concerned with how much time nurses believed they should be able to spend teaching patients.

The preliminary survey conducted to develop and pilot test the questionnaire indicated that nurses might have conflicting beliefs about the value of spending time teaching patients (see Chapter 3). To determine the extent of this disagreement

nurses were asked to record the degree to which they considered teaching patients was either a time consuming or a time effective activity. The majority of nurses (n = 101) reported that they found patient teaching time consuming. However 80 nurses reported that teaching patients was either not time consuming or that it was a time effective activity The distribution of scores, as shown Figure 3, was found to be bi-modal suggesting that for this factor there were two distinct groups of nurses.

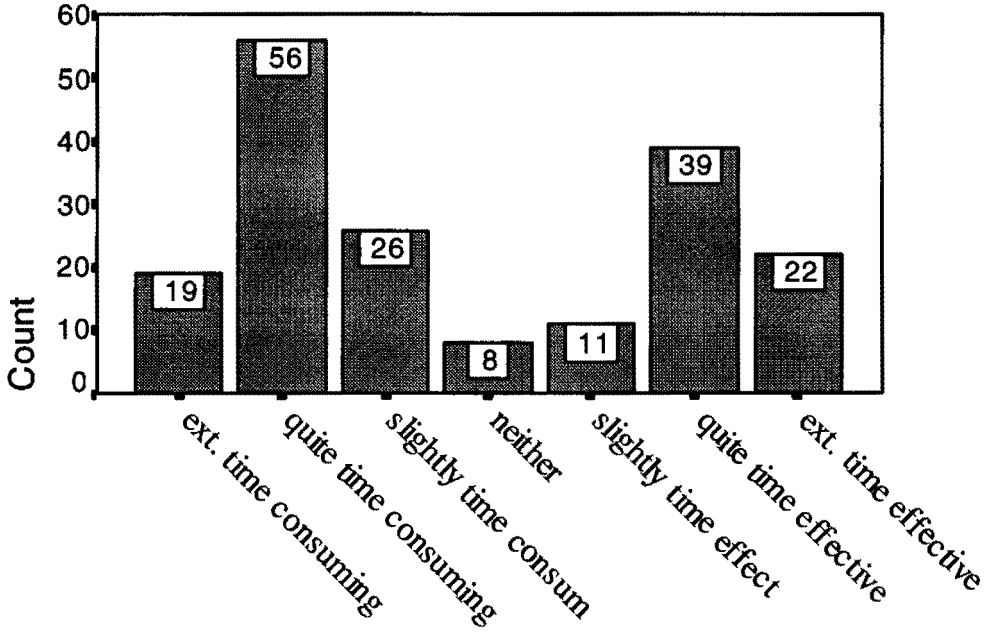

Figure 3 Nurses perceptions of patient teaching as a time consuming or time effective activity.

Nurses were also asked to provide an estimate of how much time they thought should be spent teaching patients (see Questionnaire, Item 35). The majority of nurses (61%) reported that they believed they should spend more than 15% of their time teaching patients. This is the equivalent of one hour and twenty minutes per shift (see Table 11).

Table 11

Percentage of Time Registered Nurses Believe Should be Spent Teaching Patients

Category	n	%
>5% [a]	2	1
5 - 10% [a]	42	23
11 - 15%	27	15
16 - 20%	59	33
< 20%	51	28

Note *a*. Category 1 (>5%) and category 2 (5 - 10%) were collapsed into one category for inferential analysis.

Priority given to teaching patients.

An additional factor, the priority nurses gave to teaching patients when planning care and providing care, was also included in this study. Subjects were asked to rank patient teaching with eight alternative nursing activities. The results showed that patient teaching was ranked fifth for both planning care and providing care. Teaching patients was consistently ranked lower than alternative patient centred activities such as direct patient care, giving medications, and taking observations, but higher than non patient centred duties (see Table 12 for rankings and means for these two items).

Table 12

Ranked Priority Given to Nursing Duties when Planning and Providing Care

Nursing activity	Priority in planning care *Mean*	Rank	Priority in providing care *Mean*	Rank
Direct patient care [a]	1.6	1	1.6	1
Administrating medications [a]	2.6	2	2.6	2
Taking and recording observations [a]	3.1	3	3.0	3
Planning and recording care [a]	3.9	4	4.1	4
Teaching and coaching patients [a]	**4.2**	**5**	**4.3**	**5**
Assisting medical staff [b]	5.8	6	5.8	6
Administrative duties [b]	6.9	7	6.9	7
Attending meetings [b]	7.6	8	7.7	8
Other duties [b]	8.5	9	8.4	9

Note a. Patient centred activity
b. Non patient centred activity

Summary of the descriptive analysis

The participants' intention to teach patients, attitudes towards teaching patients, and subjective norms of teaching patients were predominantly positive. The majority of the nurses reported that they intended to teach patients once a day or more during the next five shifts they worked and that they had taught patients once a day or more during the last five shifts worked. However, a rank order question showed that teaching patients was not given a high priority when ranked with other nursing activities. Most nurses indicated that the potential barriers to teaching patients examined in this study were unlikely to impede their patient teaching. A majority of nurses reported that they found patient teaching was a time consuming activity. A large minority however, reported that teaching patients was either not time consuming or that it was a time effective activity. Although most nurses reported that they felt they should spend more than 15% (1 hr 20 mins per shift) of their time teaching

patients only 28% believed they should spend more than 20% (1 hr 30 mins per shift) of their time on patient teaching.

Relationships Between the Constructs of the TRA

Relationship between actual patient teaching and the intended frequency for patient teaching

The study's conceptual framework predicted that the variables patient teaching and intention to teach have a positive relationship. The Spearman's Rank Order correlation coefficient showed a significant positive relationship between these two variables, r_S (N = 181) = 0.61, $p < .0001$ (see Table 13). This hypothesis was supported.[2]

Relationships between intention, attitude and the subjective norms

The TRA further proposes that people who perceive the subjective norms of a behaviour as favourable, are likely to intend to carry out that behaviour more frequently than those who perceive the subjective norms less favourably. In this study only a weak significant positive relationship between intention and direct subjective norms and indirect subjective norms was noted, r_S (N = 181) = 0.21, $p < 0.004$ and r_S (N = 181) = 0.19, $p < 0.004$ respectively. The TRA also proposes that there will be a positive relationship between attitude and intention. In this study the relationship between nurses' intention and direct attitude was found to positive but not significant r_S (N =181) = 0.1440 $p < 0.058$). Simlarly the relationship between the nurses' indirect attitude scores was found to positive but not significant r_S (N =181) = 0.1380 $p < 0.06$) This hypothesis therefore was not supported by the findings of the study.

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[2] For most variables examined in this study the responses were distributed within a small number of cells, the correlation coefficients would therefore be smaller than expected (Lindeman, Merenda & Gold, 1980, p.60).

The correlational matrix for patient teaching, intention, attitude and subjective norms is presented in Table 13.

Table 13

Correlational Matrix for Patient Teaching, Intention to Teach, Attitude and Subjective Norms

	Teaching	Intention [a]
Teaching [b]		.6113 *
Direct attitude	.1610	.1440
Indirect attitude	.1540	.1380
Direct sub norm	.1842 *	.1976 *
Indirect sub norm	.1910 *	.1915 *

Note *a* Teaching = Frequency of actual patient teaching provided

b Intention = Frequency of intended patient teaching

* $p < .05$

Relationships Between the Constructs of the TRA and External Factors

The relationship between patient teaching activities, intention, attitude, subjective norms and perceptions of barriers to patient teaching

It was of interest, in this study, to examine whether the subject's perceptions of the barriers to teaching patients in their clinic areas were associated with their actual patient teaching, their intention to teach, their attitudes; or their subjective norms (the four potential barriers examined are listed in Table 14). Weak to moderate significant associations were noted in the correlational matrix (see Table 14). The perception that the patient's condition was such that teaching would be inappropriate was correlated with actual teaching r_s (N =181) =.24, $p < .05$, and intention to teach r_s (N = 181) = .25, $p < .05$. These findings suggest that the nurses might be less likely to teach

patients or intend to teach patients if they perceived the patient's condition would make teaching an inappropriate activity.

The nurses' attitudes towards teaching patients were found to be associated with the four barriers examined in this study. These associations were significant and positive but only weak relationships were noted (see column 3 Table 14). The implication of these findings are that if nurses perceive obstacles to teaching patients in the clinical area they may have less favourable attitudes towards teaching patients. No significant association between the subjective norms scores and the nurses' perception of barriers to teaching patients was found.

Table 14

Correlational Matrix: Actual Patient Teaching, Intention, Attitude, Subjective Norms and Perceived Barriers to Teaching Patients

	Teaching [a]	Intention [b]	Attitude [c]	Sub norms [d]
Potential barriers				
1. Patients do not remain in the clinical area long enough for teaching and coaching to be effective	.1208	.1090	.3448 *	-.0487
2. Often the patient's condition is such that teaching would be inappropriate	.2359 *	.2459 *	.1987 *	.1051
3. Lack of resources prevents teaching and coaching	.0931	.0453	.3082 *	.0387
4. Clinical area is not a suitable environment for teaching patients	.0511	.0614	.2533 *	.0857

Note *a.* Teaching = Actual patient teaching
b Intention = Intended patient teaching
c Attitude = Attitude towards teaching patients
d Sub Norm = Perception of the subjective norms of teaching patients

* $p < .05$.

Comparison between patient teaching, intention, attitude and subjective norms and the nurses' beliefs about the proportion of time they should spend patient teaching

A Kruskal-Wallis chi squared approximation analysis was undertaken to determine whether the nurses' beliefs about the amount of time that should be spent teaching patients were associated with their patient teaching, intentions to teach, attitudes and subjective norms scores. The scores for patient teaching and intention were found to be significantly different according to the nurses' beliefs about the amount of time that should be spent teaching patients ($p > .05$). Examination of the ranked means for teaching and intention showed that the percentage of time nurses believed should be spent on teaching patients was directly associated with the frequency of their actual teaching and their intentions. That is, nurses who believed that more than 20% of their time should be spent teaching also intended to teach more often and actually provided more teaching than those who believed smaller percentages of time should be spent teaching patients. Attitudes and subjective norms, were not found to be significantly associated with nurses' beliefs about the proportion of time they should spend teaching patients. The grouping of the rank means for patient teaching, intention, attitude and subjective norm by the percentage of time nurses believed should be spent teaching are presented in Table 15.

Table 15

Comparison of Teaching Activities, Intentions Attitudes, and Subjective Norms by the Percentage of Time Nurses Believed Should be Spent Teaching Patients

Time [a] percentage	n	Teaching [b] mean rank	Intention [c] mean rank	Attitude [d] mean rank	Sub. Norms [e] mean rank
> 10%	44	71	71	89	95
10 - 15%	27	90	87	92	77
16 - 20%	59	97	100	99	98
< 20%	51	102	101	82	85

Note a = The percentage of time nurses believed should be spent teaching patients
b = The amount of time spent teaching patients
c = Intention to teach patients
d = Attitude towards teaching patients
e = Perception of the subjective norms of teaching patients

The relationship between demographic variables and patient teaching activities, intentions, attitudes and subjective norms

The non parametric analysis did not support any association between any demographic variables, and the nurses' teaching activities, intention to teach, attitude or subjective norms. Thus it can be concluded that there is no relationship between these nurses' age, experience, professional education, employment status, clinical area or their level in the career structure and their attitudes towards teaching or their subjective norms of teaching patients. Also these variables are not related to the nurse's teaching activities or their intention to teach patients.

Comparison of the Priority Nurses Gave to Patient Teaching when Planning Patient Care and the Actual Priority Given to Teaching Patients.

Nurses were asked to record what priority they intended giving patient teaching when organising their work load and also to record the priority they gave teaching patients during the previous five shifts worked. A strong significant positive relationship between these two factors was noted, r_S ($N = 181$) = .73, $p < 0001$. The implication of this finding is that the nurses were able to plan their work loads and provide the amount of patient teaching they believed appropriate.

Chapter 6

Discussion and Conclusion

In this descriptive correlational study nurses' patient teaching intentions and behaviours were examined in relation to selected factors that previous research had shown to be associated with nurses' ability and willingness to meet their patient education responsibilities. Ajzen & Fishbein's (1980) theory of reasoned action (TRA) formed the basis of the study's conceptual framework. Also Ajzen & Fishbein's (1980) recommendations for instrument development were used to guide the development of the study's questionnaire. Therefore the study also tested potential of the TRA as a predictive model for nurses' patient teaching behaviours. Three primary questions addressed the relationships between nurses' patient teaching intentions, behaviours, attitudes and subjective norms. Subsidiary questions addressed the relationship between nurses' patient teaching intentions, behaviours, attitudes and subjective norms and their perceptions of barriers to patient teaching in acute clinical areas and their beliefs about spending time on patient teaching. In addition the study also examined the relationship between the priority nurses gave to patient teaching when planning and providing patient care.

The following discussion looks at the findings of this study in relation to assumptions and conditions of the TRA and the literature on patient teaching. The limitations of the study are identified and a number of conclusions are drawn from the study along with implications for nurse education and administration and recommendations for further research.

Summary of Findings

The findings of the study show that the majority of nurses who responded to the survey carried out patient teaching activities at least once each shift during the last five shifts they worked. These nurses had a wide range of age, clinical experience, educational backgrounds and worked a variety of shifts. Despite this diversity, these nurses' intentions to teach patients, attitudes towards teaching patients, and subjective norms for teaching patients were found to be predominantly positive. Most respondents also indicated that the potential barriers to teaching patients examined in this study were unlikely to impede their patient teaching. Although a majority of respondents reported that they found patient teaching was a time consuming activity, a minority reported that teaching patients was either time effective or that it was not time consuming. Most respondents reported that they felt they should spend more than 15% (1 hr 20 mins per shift) of their time teaching patients only. When asked to rank patient teaching amongst nine alternative nursing duties the majority of the respondents ranked it fifth when planning care and providing care.

Questions and Hypotheses

The relationship between nurses' patient teaching activities and their intentions to provide patient teaching in acute clinical setting

The first hypothesis tested in this study was supported. As predicted by the study's conceptual framework a positive significant relationship was found between the nurses' intention to teach patients and their actual patient teaching. A significant number of nurses reported that the frequency of their intentions to teach patients corresponded with the frequency of their actual teaching. Most nurses reported that they had provided

their clients with patient teaching at least once each shift worked during the last five days and that they intended to provide patient teaching at that level during the next five shifts they worked. The implication of this finding is that nurses, who work in acute clinical settings, are aware of their responsibility to provide their patients with a health education service and actively address that responsibility by purposefully including patient teaching in their patient care frequently and on a regular basis.

This hypothesis was tested because it was considered necessary to obtain a current picture of nurses' commitment to patient education in acute hospital settings. Recent surveys conducted in North America have found that although generally, nurses recognise the importance of patient education and believe that it is a relevant nursing intervention, they are unsure of their teaching role and are not satisfied that their patients received the education they required (Caffarella, 1984; Tilley Gregor & Theissen, 1987; Honan, Krsnak, Peterson & Torkelson, 1988; Barrett et al., 1990 and Kruger, 1991). These studies, however, did not empirically demonstrate whether the nurses' beliefs about patient education were in any way related to their willingness to provide patient teaching to their clients or to the frequency with which nurses include that activity in their patient care. Despite this, a common conclusion drawn by the above mentioned authors was that nurses were not committed to including patient teaching in their nursing activities and they were not providing an adequate service. In this study, it was felt that it was important to obtain a quantitative measure of nurses' patient teaching behaviours and intentions before drawing any conclusions about the effects nurses' beliefs and perceptions may have upon willingness and ability to perform this important nursing responsibility.

The relationship between nurses' patient teaching intentions and behaviours and their attitudes to patient teaching

The findings of the study did not support the second hypothesis that nurses' patient teaching intentions were positively related to their attitudes towards patient teaching. A direct measure of attitude (general favourable or unfavourable beliefs about the value of patient teaching) and an indirect measure of attitude (a set of behavioural beliefs about patient teaching) were examined. The relationships between nurses' intention to teach patients and both their direct and indirect attitudes were found to be positive but not at a statistically significant level. Similarly, the relationships between nurses' direct and indirect attitude scores and the frequency of their patient teaching were not found to be statistically significant. This study therefore does meet the condition of the TRA that attitude and intention are empirically related. However, these statistically non-significant correlations may have been a result of a major positive skewness in the distribution of scores for both frequency intention and frequency of patient teaching and a moderate positive skewness in the two sets of attitude scores. Burns and Grove (1989, p.449) point out that when data are skewed the efficiency of Spearman's correlation test is diminished.

Comparisons, by cross tabulation, of the distribution of scores for the two measures of attitudes and the distribution of the scores for frequency of intention confirmed the results of the correlational analysis. All the nurses' reported positive attitudes towards patient teaching. However, the strength of their attitude did not necessarily correspond with whether they had reported that they intended carrying out patient teaching less than once a day, once a day or more than once a day.

This result was disappointing because it precluded further testing of the TRA as predictive model for nurses' patient teaching behaviours. It does, however add important

information to the current picture on patient education regarding Western Australian nurses' commitment to patient teaching in acute clinical areas. This result shows that nurses who report a high frequency of providing patient teaching also have favourable attitudes towards patient teaching and these attitudes are based on nurses' evaluation that patient teaching leads to useful outcomes.

This study's findings on nurses' attitudes towards patient teaching are consistent with the findings of the studies conducted by Stanton (1986) and Belisle (1991). Those studies, which used a measurement of attitude developed by Stanton, also concluded that nurses generally do have positive attitudes towards patient education. Both Stanton's and Belisle's studies were also unable to demonstrate that nurses' attitudes were associated with the amount of time nurses spent on patient teaching activities.

The relationship between nurses' attitudes towards patient teaching and their behavioural beliefs about patient teaching

The study's third hypothesis that nurses' attitudes towards patient teaching are positively related to their behavioural beliefs was supported. Strong statistically significant positive relationships were found between nurses' direct and indirect attitude scores. This finding is important because it confirms that nurses have favourable attitudes towards patient teaching and that they recognise the link between their actions and beneficial outcomes for patients. These findings also confirm that the salient beliefs about patient teaching identified in the study's preliminary survey are representative of the behavioural beliefs of a diverse group of nurses employed in acute hospital settings.

Specifically, the study identified and examined five salient beliefs related to patient teaching. These beliefs were that coaching and teaching patients helps them to manage and/or participate in their own care, adapt to their altered health status, reduce anxiety,

comply with treatments, prevent readmissions and shorten the time they spend in hospital. It was reassuring to discover that Western Australian nurses' beliefs about the beneficial outcomes of patient teaching can be supported by research studies. A study conducted by Huss, et al. (1991) demonstrated that patients and their families are more able to self care after receiving patient teaching from nurses. Dodd (1988) found that patients' levels of anxiety were significantly lower after receiving patient education. Miller and Shanks (1988) found that providing information led to higher levels of compliance with treatment regimens. Alexander et al. (1988) have shown that effective patient teaching by specialist nurses led to a reduction in hospital usage and readmissions for a group of asthmatic children.

The relationship between nurses' patient teaching behaviours and intentions and their subjective norms for patient teaching

The findings of the study supported the hypothesis that there is a positive relationship between nurses' intentions to carry out patient teaching and the subjective norms for patient teaching. Two measures for subjective norms were included in this study. A direct measure examined nurses' general beliefs about whether people who were important to them expected them to carry out patient teaching activities and their motivation to comply with those people. An indirect measure examined nurses' beliefs about the expectations of specific types of individuals who were nominated as important referents to nurses and their motivation to comply with those people. Positive but weak relationships ($p > .05$) were found to exist between the two measures of subjective norm and the frequency of nurses reporting that they intended to carry out patient teaching. Similar positive relationships were found between the frequency with which nurses reported they had carried out patient teaching and their scores for subjective norms. The implication of this finding is that many nurses recognise that they are expected to include

patient teaching in their patient care and at present they are willing to satisfy that expectation.

The relationship between nurses' subjective norms for patient teaching and their normative beliefs about patient teaching.

The hypothesis that there is a positive relationship between nurses' subjective norms for patient teaching and their normative beliefs about patient teaching was supported by the findings of this study. Nurses' direct and indirect subjective norm scores were found to be positively related at a statistically significant level. The seven salient referents for patient teaching were clinical nurse specialists, staff development nurses, patients, peers, allied health professionals, patient's relatives and medical staff. The results of the study showed that most nurses believed all these people expected them to carry out patient teaching, and they were motivated to comply with those people's expectations. Examination of the rank mean scores for this factor showed that clinical nurse specialists, staff development nurses and patients were ranked first, second and third. The implication of this is that nurses are influenced by these salient referents' expectations of them to include patient teaching in their nursing practise. Medical staff and allied health professionals were ranked last and second last suggesting that many nurses may perceive these members of the health team as not being an important influence on their patient teaching activities.

The utility of the theory of reasoned action as a predictive model for nurses' patient teaching

The utility of the TRA to predict nurses' patient teaching behaviours from their attitudes and subjective norms was not supported by the findings of this study. Nurses' attitudes towards patient teaching were not found to be significantly related to their

intention to teach patients or their patient teaching behaviours. The relationship between the subjective norms and patient teaching intentions and behaviours was weak. Ajzen and Fishbein (1980, p.76) assert that "inappropriate measures ... may impair the observed relation" between intention and attitudes and/or subjective norms. In this study the distribution of scores for measures of behaviour and behavioural intention were found to be extremely skewed, suggesting that these measures were inappropriate.

Subsidiary Questions

The relationship between barriers to patient teaching and nurses' patient teaching

The first subsidiary question in this study was concerned with identifying nurses' perceptions of barriers to their patient teaching and examined the relationships between those perceptions and nurses' patient teaching activities. Four barriers to patient teaching were identified in the review of the literature and included in the survey questionnaire. The barriers were that patients do not remain in the clinical area long enough for patient teaching to be effective, their conditions are such that teaching would be inappropriate, lack of resources in the clinical area prevents patient teaching and the clinical area was not a suitable environment for patient teaching. Ajzen and Fishbein (1980, p. 82) argue that factors external to the TRA will affect behaviour only to the degree that they influence a person's attitudes or subjective norms. However, in this study, nurses' attitudes towards patient teaching were not shown to be significantly related to their patient teaching intentions or behaviours, and only a weak relationship was found between nurses' patient teaching behaviours and intention and the subjective norms for patient teaching. Therefore the relationships between nurses' perceptions of barriers to patient teaching and their patient teaching behaviours, intentions, attitudes and subjective norms were examined. Weak positive statistically significant relationships were found between nurses' perceptions of all four barriers and their attitudes towards patient

teaching. This result suggests that nurses' perception of barriers will affect the strength of their attitudes towards patient teaching. However, all respondents were found to have positive attitudes and the majority reported that the barriers identified were very or extremely unlikely occurrences in their clinical areas.

The results of this study indicate that nurses' ability to carry out patient teaching is not hindered by situational barriers in acute clinical areas. As expected, nurses who felt that their patients' conditions were such that patient teaching would be inappropriate were found to be disinclined to intend to teach or to attempt patient teaching.

The effect of barriers to patient teaching on nurses' willingness and ability to provide patient education has been considered in several studies. In a study conducted by Lipetz et al. (1990) nurses reported that they believed patients were not in the hospital long enough to receive patient education, their patients' condition was a impediment to patient teaching, and that hospitals were not appropriate settings for patient education. According to those authors, nurses' perceptions of these barriers prevented them from providing patients with information. In a study conducted by Barrett et al. (1990) the majority of nurses reported that the lack of materials for teaching patients hindered their patient education endeavours. None of these investigations attempted to quantitatively assess the effect that these barriers had on nurses' actual patient teaching activities.

The relationship between nurses' beliefs about spending time teaching patients and their patient teaching activities

This study did not support the proposition that nurses' beliefs about whether patient teaching was a time consuming activity or a time effective activity was related to the frequency of their patient teaching activities. The distribution of scores for the measurement of this factor were bi-modal, suggesting two distinct groups of nurses. Comparison of the two groups by chi squared test showed no differences in the frequency with which each group reported teaching patients during the last five shifts. This finding may indicate that the adjectival clauses, time consuming and time effective, are not polar opposites. Nurses responding to the question may have believed that patient teaching is time consuming in the short term but but also time effective in the long term. The differeing interpretations for this item may therefore have confounded the results.

The study further tested for a relationship between nurses' beliefs about the percentage of time they believed should be spent teaching and their patient teaching activities and intentions. Responses for this item were categorised as less than 10%, 10 to 15%, 16 to 20% and more than 20%. A Kruskal-Wallis chi squared approximation test was undertaken to examine whether the nurses' beliefs about the amount of time that should be spent teaching patients was associated with their patient teaching activities. The results of this analysis showed that the nurses' beliefs about the amount of time that should be spent teaching patients were directly associated with the frequency of their intentions to teach patients and their actual patient teaching. This result suggests that nurses are aware of how much time patient teaching requires and that they plan and carry out their patient teaching duties accordingly.

The priority patient teaching is given when planning care and providing care.

The final question in this study sought to identify what importance nurses gave to patient teaching in comparison to other nursing duties. The majority of nurses ranked patient teaching fifth out of nine alternative nursing duties for both planning and providing their patient care. Patient teaching was consistently ranked lower than other patient centred activities such as direct patient care, administering medications, taking observations, and planning and recording care and higher than non-patient centred and administrative duties. This result is consistent with the finding of a descriptive study conducted in the USA by Honan et al. in 1988. In that study, nurses also gave patient teaching lower priority than direct patient care, administering medications and charting patients observations. However, Honan et al. found that the majority of nurses in their survey also believed that patient teaching was an important part of their nursing practice.

The manner in which nurses ranked the nine nursing duties offers some interesting insights on how nurses approach their patient care. In this study, nurses consistently ranked direct patient care as a first priority and planning patient care as fourth priority. This result suggests that nurses' approach to patient care is more practical than analytical and that their practice is likely to be guided by their knowledge of what is expected of them and meeting patients demands as they arise rather than following a formal plan of action.

Limitations to the Study

There are several limitations to the generalisation of the findings of this study. A possible limitation that should be considered is that the nurses involved in this study may feel that failure to provide clients with patient teaching reflects their own level of competence. A response set may therefore, have occurred with nurses responding as

they felt they should. Nurses were asked to report on their intended behaviours and their actual behaviours in the same questionnaire and the study could not control for the possibility that their responses to one set of items may have influenced their response to the other set of items. Also, the study could not control for the possibility that nurses may have been exposed to concurrent educational programmes or in-service training on patient teaching, or for other factors that may have influenced their questionnaire completion. To maintain confidentiality lists of the names of participants in the preliminary surveys were not kept and therefore it cannot be guaranteed that these nurses were excluded from the final survey. These preliminary surveys may have served as a reminder for some nurses to increase the patient teaching aspect of their patient care.

The response rate of 40.2% was low. According to Burns and Groves (1987, p.314) the representativeness of the sample can not be assumed if response rates are less than 50%. The characteristics of the nurses who responded therefore, may not be representative of all nurses invited to participate. Those who responded may have been more highly motivated and active in their patient teaching than those who chose not to take part in the study. However, a variety of alternative reasons could have influenced the nurse's willingness or ability to participate in the study. For example, work loads may have been heavy in some areas and many nurses may have had difficulty finding time to complete the questionnaire. The nurses employed in the study settings were also the subjects of other research projects and may have resisted the burden imposed by several simultaneous studies. Despite the expectation of a higher rate of response, the final overall number of 181 useable responses was deemed adequate for statistical analysis.

Conclusions

The results of the study present a very encouraging picture that shows that many Western Australian nurses, who work in acute clinical areas are addressing their

responsibility to provide their patients with health education by purposefully including patient teaching in their nursing practice on a regular and frequent basis. The majority of nurses who took part in this study reported that they intended to carry out patient teaching at least once each shift during the next five shifts they work and that they had carried out patient teaching at that frequency during the last five shifts they had worked.

The high levels of patient teaching that were reported in the final survey were not anticipated at the commencement of the study. A review of the literature had indicated that nurses who work in acute clinical areas are often not motivated to include patient teaching into their daily practice. Nurses' attitudes towards patient teaching, their incongruent perceptions of patients' expectations, barriers to patient teaching, the amount of time patient teaching entailed and the priority nurses gave to patient teaching had been put forward as factors that could enhance or hinder nurses in their patient teaching activities. Each of these factors was examined in this study to determine whether they were related to the frequency of nurses' intention to teach patients and their actual patient teaching. Nurses' attitudinal and normative beliefs were examined and compared to their patient teaching behaviours and intentions. In this study, nurses' attitudes about patient teaching were not found to be related to either patient teaching intention or behaviour. Nurses' normative beliefs were found to be only weakly related to their patient teaching intention and behaviour. The nurses who took part in this study did not perceive any of the barriers examined as likely hindrances to their patient teaching, nor did they indicate that time is a likely impediment to patient teaching. The nurses were found to rank patient teaching with a lower priority than other patient centred duties. Despite this, those nurses also reported high levels of patient teaching activity.

The hospital based health care service in Western Australia is in a state of change and it will be necessary to monitor how these changes affect nurses' ability and

willingness to provide their patients with a frequent and regular patient education service. The introduction of DRGs, into the Australian health care service, means that rationalisation of services and budgetary restraints are now a major consideration. This means that patients will be in hospital for shorter periods and consequently nurses will have less time to interact with individual patients. Patients will be discharged from hospital and will be expected to manage much of their own recovery and convalescence. Nurses must be committed to preparing patients for discharge and patient education is an important aspect of that discharge preparation. At present, many nurses report that they believe patient teaching is a time consuming activity and most nurses give it a low priority compared to other duties. These two factors have the potential to become problems in the future if nurses' workloads are increased and the time available for patient teaching is seriously reduced.

Implications and Recommendations for Future Practice and Research

These findings have important implications for nursing practice, administration and education and research. Nursing is a practice based discipline and it is essential that nurses who are employed in acute clinical settings are motivated and able to provide their clients with a relevant and effective service. Patient teaching is an integral aspect of modern nursing practice that has been shown to be a relatively effective method of promoting and maintaining health in the community. The nurses who took part in this study have shown that they are both motivated and able to meet their patient education responsibilities. Nurse administrators, educators and researchers also have a responsibility to ensure that all nurses in the practice area remain motivated and continue to be able to provide this service.

Implications for nursing administration, education

Ajzen and Fishbein (1980) assert that efforts to direct behaviour should be aimed towards the beliefs that are most salient to the group and that for communication to be persuasive it should contain information linking the behaviour of interest to various positive outcomes. In this study, only nurses' normative beliefs were found to be related to their patient teaching behaviours. Clinical nurse specialist and staff development nurses and patients were nominated by Western Australian nurses as salient referents for their patients teaching activities. The implication is that clinical nurse specialist and staff development nurses will need to continue to positively reinforce their commitment to patient education if patient teaching is to be maintained at its present level.

Recommendations

On the basis of this study's results it is recommended that nurse educators in both clinical and academic settings target educational interventions to include exploration of nurses' attitudinal and normative beliefs about patient education. Nurse educators need to ensure that students are provided with courses that provide appropriate content on patient education and patient teaching strategies and methods. Students also need relevant clinical experiences that will help to incorporated patient teaching into their nursing practice. Staff development nurses need to build on existing attitudinal and normative beliefs about patient education and when planning in-service education programmes on patient teaching.

Nursing administrators will need to ensure that all nurses continue have the time and equipment they need to carry out patient teaching. They can do this by being alert to nurses' needs for time when they organise workloads, conduct acuity and negotiate conditions and budgets with hospital and health department administrators. Quality

assurance programmes can be used to monitor and evaluate the patient education programmes to ensure the continuity of this service.

The results of the study show that further development and testing of the questionnaire are necessary. The items developed to measure intention were found to lack precision and consequently data for this construct had limited statistical application. In this study, nurses were asked to report on the patient teaching activities and intentions over a five day period, however, the results indicated that one day would have given a more precise measure of the strength of the nurses' intention.

The indirect measurement of attitude used in this only included positive outcomes to patient teaching. These outcomes were all related to benefits patients would gain from patient teaching. A more useful measurement may have included negative outcomes and/or outcomes that related personally to nurses. The preliminary survey conducted to elicit nurses' salient beliefs only included nurses enrolled in a Bachelor of Nursing programme and their responses may have been biased. It is recommended that further surveys are conducted to elicit behavioural beliefs about patient education from a more diverse population of nurses.

The questionnaire used in this survey contained 40 items and many of these items were directed towards obtaining information on factors that were external to the TRA. The questionnaire may therefore have appeared to be unnecessarily long, complicated and repetitious to many nurses. The low response rate may have been associated with those nurses' inability or unwillingness to complete the questionnaire. Some of the information gathered in this survey, demographics for example, was found to have no relationship to nurses' patient teaching activity. Future studies should focus on examining the constructs of the TRA. Information about other factors which are external to the model should be gathered in alternative studies or confined to a limited number of items.

Finally the TRA was not developed to provide information on how successful the behaviour of interest was in meeting its expected outcomes. Therefore, in this study nurses' success at helping their patients learn new knowledge, gain understanding and/or acquire skills were not examined. Further research on the effectiveness of nurses' patient teaching activities in meeting the patient's health education needs is required.

Studies should be undertaken to examine how well patients learn new knowledge, gain understanding and acquire skills as a result of nurses' patient teaching. These studies are particularly important where existing standardised teaching programmes are in use. Also new and innovative patient teaching strategies and methods need to be developed and tested to help nurses meet the changing demands of a modern health care service.

The teaching and coaching function of nurses described by Benner (1984) needs to be further refined and validated. The multi-faceted nature of patient teaching suggests that both qualitative and quantitative studies will needed to fully examine the ways in which nurses respond to their patients' education needs with formal and informal teaching responses. Research is also needed to determine patients' satisfaction with nurses' patient teaching. Here again both qualitative and quantitative studies would prove be useful in helping nurses gain a deeper understanding of their patients' health education needs, their expectations of nurses as health educators and their perceptions of the value of the patient teaching they receive.

APPENDIX A

date.

Dear Nursing Colleague,

As a graduate student at Edith Cowan University currently completing the course requirements towards a Master of Nursing, I am conducting a survey that addresses nursing attitudes towards teaching patients in clinical settings.

I would like to ask you to participate in my study. Your participation is voluntary and all information is confidential.

To ensure confidentiality is maintained and you cannot be recognised questionnaires will only be marked with a code. Master lists of names and codes will be kept in a locked safe separate from the completed questionnaires. Please do not sign the questionnaire.

After completing the questionnaire, which will take approximately twenty minutes, please place it in the envelope provided and seal the envelope. Completed questionnaires will be collected either by myself or a representative during the week commencing / / .

Thank you for you cooperation that may benefit patient care.

Yours sincerely,

Ian Mullins

Enc Questionnaires
Description of the Study

APPENDIX B

Dear Colleague,

In this survey I am interested in examining Western Australian registered nurses' beliefs about their patient teaching activities in acute clinical settings. The data collected in this survey will be used to develop a more detailed questionnaire. The final questionnaire will be distributed to a sample of Western Australian Nurses employed in acute clinical settings in selected hospitals. The overall purpose of this study is to examine what factors motivate and or what factors hinder nurses in providing a patient teaching service in acute clinical settings.

Your participation in this survey is completely voluntary and your responses will be confidential and anonymous. Please do not write your name on the questionnaire. If you do not wish to participate please return the blank questionnaire. The questionnaire will take 10 to 15 minutes to complete.

Yours sincerely

Ian Mullins
NL62
SON.
Edith Cowan University.
Telephone [redacted]

Questionnaire

Part A

Please indicate in the space provided which clinical area or type of hospital ward are currently employed in.

_____

I am interested in finding out how Western Australian registered nurses who work in acute clinical areas describe their patient teaching activities. Listed below are four alternative descriptions in the space provided please rank each description according to how closely it describes your patient teaching activities. Rank the description that best describes your activities as 1 and the description that least describes your activities as four.

My patient teaching activities are mostly directed towards providing patients with information which will help them understand their conditions, comply with treatments and reduce their anxieties about hospitalisation	
My patient teaching activities are mostly based on formal assessments of the patient's learning needs, and are implemented and evaluated according to a teaching plan of a patient education programme	
My patient teaching activities involve both formal and informal teaching activities that allow me to help the client to learn new knowledge, gain understanding and/or acquire the health care skills they need.	
Nurses usually do not provide patient teaching in my clinical area	

Part B

In this section I am concerned with your beliefs about the value of patient teaching in your clinical area

In the space provided please list the **advantages** of patient teaching in your clinical area

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

In the space provided please list the **disadvantages** of patient teaching in your clinical area

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Is there anything else you associate with patient teaching in your clinical area?

Part C

In this section of the questionnaire I am concerned with identifying those people or groups of people who may influence your patient teaching activities.

Please list any person or groups of people who you believe would **approve** of your teaching patients in your clinical area.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Please list any person or groups of people who you believe would **disapprove** of your teaching patients in your clinical area.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Are there any other people or groups of people who come to mind when you think about teaching patients in your clinical area?

APPENDIX D

DESCRIPTION OF THE STUDY

The purpose of this study is to investigate what motivates registered nurses to teach and coach patients in clinical settings. Two factors will be considered. These are registered nurses' attitudes about teaching and coaching patients, and their perceptions of the social pressures to teach and coach patients or not to teach and coach patients in their clinical settings.

Participants will be required to fill in a questionnaire of forty items. The questionnaire will take about 25 minutes to complete.

This study will provide previously unavailable data on the significance of these two factors in predicting if registered nurses are motivated to teach and coach patients in clinical settings. This information is needed to develop strategies to help registered nurses to become motivated to provide effective and appropriate teaching and coaching in their clinical setting.

Any questions concerning the project entitled

THE RELATIONSHIP BETWEEN NURSES' BELIEFS ABOUT TEACHING AND COACHING PATIENTS AND PATIENT TEACHING IN THE CLINICAL AREAS.

can be directed to Ian Mullins (Principal Investigator) of Edith Cowan University, School of Nursing on [redacted]

APPENDIX E

General Instructions

This questionnaire is concerned with registered nurses' beliefs about the value of patient education in their clinical setting. In addition to a few general questions, I would specifically like your views on teaching and coaching patients in your clinical area. In this study teaching and coaching refers to those formal and informal activities that allow the nurse to help clients to learn new knowledge, gain understanding and/or acquire skills.

The questionnaire has two sections. Part A contains general demographic questions. Part B contains questions specific to patient teaching and coaching. In Part B, the rating scales used have end points that indicate extreme opposite points of view. The rating scale has seven indicators, and you are requested to make a cross (X) in the place that best describes your opinion.

An example of a question is:

In my clinical setting teaching and coaching patients is -

good	_____	_____	_____	_____	_____	_____	_____	bad
	extremely	quite	slightly	neither	slightly	quite	extremely	
wise	_____	_____	_____	_____	_____	_____	_____	foolish
	extremely	quite	slightly	neither	slightly	quite	extremely	
harmful	_____	_____	_____	_____	_____	_____	_____	beneficial
	extremely	quite	slightly	neither	slightly	quite	extremely	

For this question you would choose the response from each scale that is most representative of your belief about teaching and coaching patients in your clinical setting.

When indicating your responses, please remember the following points:

1. Place your marks in the middle of spaces, not on the boundaries:

Like this	_____	_____	X	_____	_____
Not this	_____	_____	**X**	_____	_____

2. Please do not omit any questions.

3. Never put more than one cross (X) on a single scale.

SECTION A

Demographic Data

A. How many years post registration experience do you have?

_____ years

B. What is your age? _____ years

Please indicate your response by ticking the following:-

C. Was your nurse education

1. _____ Hospital based,

2. _____ Tertiary based, or

3. _____ Hospital based with a post registration tertiary award?

D. What is your current employment?

1. _____ Full Time

2. _____ Part Time

3. _____ Casual

E. What is your current position? _____

F. Please state your current level and increment.

Level _____ Increment _____

G. Which clinical area do you usually work in?

1. _____ Medical Unit

2. _____ Surgical Unit.

3. _____ Medical/Surgical combined.

H. Which shifts do you most usually work?

1. Full rotation _____ 2. Days only _____ 3. Afternoons only _____

4. Nights only _____ 5. Others _____

SECTION B

1. From the following list, please rank the activities from 1 to 9 according to the priority you intend to give to each activity when organising your work load.
[1 indicates the highest priority 9 indicates the lowest priority]

Taking and recording observations _____

Administering medications _____

Direct Patient Care _____

Teaching and coaching _____

Planning and recording care _____

Assisting medical staff _____

Administrative duties _____

Attending meetings _____

Other _____

2. During the next five shifts I work I intend to teach and/or coach patients

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

3. During the next five shifts I work I intend to teach and/or coach patients

_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
nil : once : twice : three times : four times : every day : more than once each day :

4. My teaching and coaching patients in my clinical setting is:

good _____ : _____ : _____ : _____ : _____ : _____ : _____ bad
extremely : quite : slightly : neither : slightly : quite : extremely

wise _____ : _____ : _____ : _____ : _____ : _____ : _____ foolish
extremely : quite : slightly : neither : slightly : quite : extremely

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

The next group of questions deals with **specific beliefs** you may have about the value of teaching and coaching patients in your clinical setting.

5. Teaching and coaching patients to manage and/or participate in their own health care is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

6. Teaching and coaching patients to help them to adapt to their altered health status is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

7. Teaching and coaching patients to help reduce their anxiety is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

8. Teaching and coaching patients to promote compliance with their treatments is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

9. Teaching and coaching patients to help prevent re-admission is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

10. Teaching and coaching patients to help to shorten the time they spend in hospital is:-

harmful _____ : _____ : _____ : _____ : _____ : _____ : _____ beneficial
extremely : quite : slightly : neither : slightly : quite : extremely

The next group of questions is concerned with how confident you feel that **your actions** will lead to the expected outcomes.

11. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to help them manage and/or participate in their own health care.

12. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to help them to adapt to their illness.

13. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to reduce their anxiety.

14. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to promote compliance with treatments.

15. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to help prevent re-admissions.

16. My teaching and coaching of patients is:-

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

to help shorten their stay in hospital.

The next group of questions is concerned with **what you think other people's opinions are** about you teaching and coaching patients in your clinical area.

17. Most people who are important to me think I should teach and coach patients about their condition and its management.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

18. Most of my peers think I should teach and coach patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

19. Most of my patients think I should teach and coach them about their condition and its management.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

20. Most of my patient's relatives (significant others) think I should teach and coach the patients about their condition and its management.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

21. Most of the medical staff think I should teach and coach patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

22. Most members of the allied health professions (eg. physiotherapist, occupational therapist, dietitians) think I should teach and coach patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

23. My staff development nurse thinks I should teach and coach patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

24. My clinical nurse specialist thinks I should teach and coach patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

25. Generally speaking I want to do what people who are important to me think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

26. Generally speaking I want to do what my peers think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

27. Generally speaking I want to do what my patients think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

28. Generally speaking I want to do what the patients' relatives (significant others) think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

29. Generally speaking I want to do what Medical staff think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

30. Generally speaking I want to do what the members of the allied health professions think I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

31. Generally speaking I want to do what my staff development nurse thinks I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

32. General speaking I want to do what my clinical nurse specialist thinks I should.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely
extremely : quite : slightly : neither : slightly : quite : extremely

The next two questions are concerned with the **actual** teaching and coaching you have provided for your patients during the last five days that you were on duty.

33. From the following list, please rank the activities from 1 to 9 according to the amount of time you spent carrying out each activity during the last five shifts you were on duty.
[1 indicates the highest priority 9 indicates the lowest priority]

Taking and recording observations _____

Administering medications _____

Direct patient care _____

Teaching and coaching _____

Planning and recording care _____

Assisting medical staff _____

Administrative duties _____

Attending meetings _____

Other (specify) _____

34. During the last five days I worked I provided patient teaching and coaching.

_____ : _____ : _____ : _____ : _____ : _____ : _____ :
nil : once : twice : three times : four times : every day : more than once each day :

The next group of questions is concerned with how similar your opinions are to the opinions identified by other nurses.

35. What proportion of your time do you think should be spent in teaching and coaching patients?

Less than 5% _____

5 - 10% _____

11 - 15% _____

16 - 20% _____

Greater than 20% _____

36. Teaching and coaching patients is:-

Time consuming _____ : _____ : _____ : _____ : _____ : _____ : _____ Time effective

extremely : quite : slightly : neither : slightly : quite : extremely

37. Patients often do not remain in my clinical area long enough to benefit from teaching and coaching.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely

extremely : quite : slightly : neither : slightly : quite : extremely

38. In my clinical area patients' conditions often are such that teaching and coaching would be inappropriate.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely

extremely : quite : slightly : neither : slightly : quite : extremely

39. Lack of resources in my clinical area prevents me from teaching and coaching patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely

extremely : quite : slightly : neither : slightly : quite : extremely

40. My clinical area is not a suitable environment for teaching and coaching patients.

likely _____ : _____ : _____ : _____ : _____ : _____ : _____ unlikely

extremely : quite : slightly : neither : slightly : quite : extremely

Thank you for taking the time to complete this questionnaire.