

PATIENT TEACHING AND COMPLIANCE AFTER  
EMERGENCY ROOM DISCHARGE

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## CHAPTER I

### INTRODUCTION

With today's emphasis on preventative medicine, the increasing costs of health care, and overcrowded inpatient facilities, the hospital's outpatient services are becoming an essential component in the provision of health care (Hoffman and Rockart 1969). Approximately 20 percent of all physician visits are made to hospital outpatient departments, and one-third of these are to the Emergency Room. Emergency Rooms today are increasingly being utilized as a source of primary medical care for both emergent and nonemergent conditions (Brook, Morris, Schechter 1975).

In a busy Emergency Room immediate physical care and life-sustaining procedures must take priority. Ambulatory patients coming through the Emergency Department with nonlife-threatening conditions are most often treated for their chief complaint and routed to the nearest exit. The patient often leaves without ever knowing the diagnosis, or an understanding about the medical regime which should be followed to gain any beneficial results from the prescribed treatment (Chapman and Harvey 1976).

The literature reveals many factors which may affect a patient's compliance with a prescribed medical

regime. One such factor is the amount and type of information given to the patient. Patient teaching and the need to plan this aspect of his care is considered to be important by most health professionals, yet studies indicate that patients often possess little knowledge of their disease and its treatment (Robinson 1974). Conversely, there is empirical evidence accumulating related to the positive effects of patient teaching in reaching a variety of goals (Redmon 1976).

One of the weaknesses in regard to care of the patient has been in offering him the kind of assistance necessary to continue on when he leaves the hospital environment (Isler 1974). Patients coming through the Emergency Department who are treated and subsequently discharged may require assistance in regard to their home care treatment. The Emergency Room nurse's education, experience and direct involvement in patient care puts her/him in an opportune position to evaluate and implement the kind of care and instruction a patient may require upon discharge (Lee 1977).

#### Statement of the Problem

The problem of this study was to determine the relationship between patient teaching and compliance following discharge from the Emergency Room.

### Statement of Purpose

The purpose of this study was to determine the following:

1. Is provision of information concerning home care treatment which is given to the patient in a discharge planning conference a significant variable in patient compliance?
2. What are the areas which patients identify a need for health teaching during the discharge planning conference?
3. What are the reasons cited by patients for not returning to the clinic?

### Background and Significance

Education of the public concerning disease prevention has been a service provided by public health educators for many years; however, the same cannot be said of the acute care and long-term care facilities. Patient and family education, if provided, is usually on an "incidental, accidental, and ad hoc basis" (Rosenberg 1976, p. 93).

For many years there was little money on the federal level allocated for the purpose of patient education. From the report of the President's Committee on Health Education in 1973, there was 18.2 billion dollars allocated

for medical/health activities of which less than 0.25 percent was for specific programs in health education (Fylling and Etzwiler 1975). In addition to funding problems is that of reimbursement by third-party payment for specific programs in patient education.

More recently federal legislation has been supportive in identifying the need for patient education and allotting funds for that purpose. In April 1975, the National Institute of Health-American College of Preventive Medicine Task Force passed an act identifying several areas of health education which should be provided to the public. They also stated that the hospitals and health care institutions provide the most practical place to implement such programs (Somers 1976). National organizations such as the American Heart Association and the National Cancer Institute have also been instrumental in allotment of funds and setting up programs for this same purpose.

There is increasing evidence that the American public is seeking health information today more than ever. Concurrently, physicians, nurses and other health professionals have begun to publish articles related to their respective roles and responsibilities for patient education. The common theme from all disciplines is that the

patient and family not only need to know, but have the right to know (Rosenberg 1976).

The concept of patient teaching and education is an aspect that has existed in nursing school curriculums for many years. Nurses are taught with varied emphasis that patient education is a part of their role in whatever setting they choose to practice. Pohl (1965) reported that the majority of nurses agree teaching is an important role and responsibility of the professional nurse.

Various reasons have been cited as factors contributing to some nurses' noninvolvement with patient teaching. Some do not feel prepared to take this responsibility, and others simply say they do not know how to provide it. Related factors include: lack of support from hospital administration, lack of time, heavy work load, and inadequate staffing. Recently, several nurse practice acts have included the activity of patient education as a responsibility of the professional nurse (Redmon 1976).

Every health practitioner soon learns that diagnosing and recommending treatment to a patient constitutes only half the task. The other half of equal importance is the extent to which the patient complies with his

recommendations (Rosenberg 1976). The area of patient compliance is of increasing interest due to the number of patients with chronic diseases being treated and managed in the home (Vincent 1971). A variety of studies have shown noncompliance rates that vary between 30 percent and 70 percent, with an apparent mean average of 50 percent (Rosenstock 1975).

Many variables have been studied as determinants of compliance. Since 1966, the results of data from several studies support the assumption that planned and organized patient education programs modify compliance (Rosenberg 1976). Avery (1972) presented data on fifty-two asthmatic patients who were utilizing an Emergency Room. The patients in the treatment group had discussions on factors contributing to asthmatic attacks and how to modify these. Patients in the control group had twice the number of visits to the Emergency Room in a four month time period as compared to patients in the treatment group.

Miller and Goldstein (1972) reported on a group of diabetic patients. They documented a reduction of Emergency Room admissions for diabetic coma from 2,680 in 1968 to 1,250 in 1970 in spite of the fact that the clinic population rose from 4,000 to 6,000 during that time. Their

treatment consisted of weekly educational classes for the patients.

The demographic variables of age, race, sex, socioeconomic status and education have not been conclusive as to their association with compliance versus non-compliance. There are factors which have been found to be associated with noncompliant behavior such as increasing complexity of the medical regime, patient dissatisfaction with his therapist, the degree of behavioral change required by the patient and previous noncompliance with other regimes (Sackett and Haynes 1976). Factors found to be associated with compliant behavior include good communication, warm relationship with the physician, and having received adequate information concerning the home treatment.

One area of patient compliance that is rapidly becoming recognized as an important role for nurses is discharge planning from the health care institution. Governmental agencies, insurance companies and health care agencies are becoming aware that planned, organized discharge planning saves money. Patients are able to be discharged earlier, and the cost of continuing care is decreased. In addition, the number of unnecessary readmissions to the hospital is also decreased. Many health care authorities express the opinion that nursing is in the best

position to be instrumental in organizing and implementing such programs (Isler 1975).

Discharge planning in the Emergency Room often becomes of secondary importance due to the volume of patients, lack of time, and having to set priorities in life-threatening situations. Many patients who are treated and released are provided with minimal information about their home care treatment and desired follow-up. Some return to the Emergency Room because they did not understand what to do, or for having a complication with their initial injury. Others return to the Emergency Room simply because they failed to keep their clinic appointment (Miller 1978).

With the increasing use of the hospital's Emergency Room for both emergent and nonemergent conditions, many patients are in need of follow-up care. However, a significant number of these patients do not keep their clinic appointments. Two areas that have been cited by patients as reasons for not keeping their follow-up appointments are long waiting times in the clinic and transportation problems (Rosenstock 1975). However, several studies have shown that a major reason for Emergency Room patients' failure to keep a follow-up appointment is confusion or inadequate communication on the part of hospital personnel

in instructing the patient. Fletcher, Appel, and Bourgois (1974) showed a reduction from 40 percent to 20 percent in Emergency Room patients who missed their clinic appointments by implementing the use of a follow-up telephone clerk to contact those patients who were given clinic appointments.

The actual implementation of a defined method or program for discharge planning from the Emergency Room has been reported by two institutions in the literature. There is related evidence that a source of frustration for Emergency Room nurses is lack of follow-up on patients. Those who have conducted follow-up studies have found the results to be encouraging (Brown 1977).

In summary, discharge planning as an integral part of patient education may be implemented not only for the hospital inpatients, but also on an outpatient basis in the Emergency Room. With the few institutions that have implemented this role for Emergency Room nurses, none have actually determined whether this intervention made a difference in terms of patient compliance. Because nurses are in a strategic position to fulfill this role, it is important to determine the effectiveness of such planned intervention.

### Hypothesis

The following null hypothesis was tested in this investigation: Patients receiving instruction about their home care treatment from a nurse will not manifest a significant difference in compliance from those who receive routine printed instructions prior to their discharge from the Emergency Room.

### Definition of Terms

For the purposes of this paper the following terms are defined:

1. Discharge Planning: Teaching activities by which the nurse assists the patient prior to discharge from the Emergency Room to understand the prescribed home care regime. Teaching may include providing factual information, answering questions as well as clarifying for the patient, or the teaching of a manual skill (Redmon 1976).

2. Compliance: Those patients who keep their first clinic appointment following discharge from the Emergency Room.

### Limitations

The following limitations were imposed in this investigation:

1. The educational level, socioeconomic status, sex, or race of the patient
2. Patients who have had previous instruction or education by a health care person or agency

#### Delimitations

For the purposes of this study, the following delimitations were made:

1. The patient was a resident of the County Hospital District
2. The sample was confined to only one institution
3. Patients had either one or a combination of the following problems: (a) laceration, (b) minor burn, (c) orthopedic injuries, or (d) mild closed head injury
4. Following treatment in the Emergency Room, the patient was discharged home and not admitted to the hospital
5. All patients who participated in the study were of age eighteen or greater

#### Assumptions

The following assumptions were made for this study:

1. The criteria for sample selection provided the probability for obtaining a heterogeneous group

2. Patient teaching is a component of the professional nurse's role

### Summary

This study was done to determine if teaching by a nurse concerning home care treatment and follow-up prior to discharge from the Emergency Room had any effect on patient compliance. It is considered important to determine the effectiveness of such intervention in order to justify the need for nurses to implement such a role. The validity of this supposition has yet to be determined.

Chapter I has described the problem and purposes of the study, as well as the background and significance of discharge planning in the Emergency Room. Chapter II, the Review of Literature, consists of a brief overview of the recent investigations involving patient education, the nurse's role, and the area of patient compliance. Chapter III contains the procedure for the collection of data, methodology of the study, and a discussion of the treatment of data obtained. Chapter IV consists of the results obtained from the study, as well as an interpretation of the findings. Chapter V concludes with a summary of the results, the conclusions that can be drawn from the investigation, the resulting implications for nursing care, and recommendations for future investigations of this problem.

## CHAPTER II

### REVIEW OF THE LITERATURE

Increasing numbers of health professionals are recognizing the need for patient education and also its effect on the compliance of patients. It is the purpose of this chapter to discuss patient education, the nurse's role and the investigational literature in the area of patient compliance. Emphasis will be given to compliance and noncompliance and the available related literature particular to the Emergency Room setting.

The increasing interest in the area of patient compliance is the result of a number of factors. The development of highly effective drug therapies for illnesses has allowed many patients to be treated and cared for as outpatients, whereas previously this would have required hospitalization. For many years practitioners of medicine attributed unsuccessful outcomes of drug therapies to weak medications, fatally ill patients, or "divine intention" (Komoroff 1976). From a reievew of the literature, it is now apparent that a more relevant factor is the degree to which a patient adheres to a prescribed regime.

The term compliance may be defined simply as the behavior exhibited by the patient when he carried out his

doctor's orders with regard to the medical regime (Davis 1963). Other terms which may be used to describe such behavior are adherence and therapeutic alliance (Sackett and Haynes 1976). Sackett and Haynes's (1976) definition was stated similarly as the degree to which the patient adheres to health instructions and advice.

Various studies have been done to determine two basic factors about compliance: (1) the existing percentage of noncompliance, and (2) the factors which may affect either increased compliance or noncompliance. Published reports show a wide variation from 4 to 100 percent of non-compliance rates. It was estimated by Davis (1966) that approximately 30 to 35 percent of patients fail to follow their physician's recommendations. Such a wide range of statistics was attributed to variable populations, the type of study, and the variety of medical problems studied. In spite of these differences, at least one-third of the patients failed to comply in the studies reviewed (Davis 1968).

In the past ten years physicians and social scientists have shown an increasing interest in the effect of variable doctor-patient relationships on compliance of patients. The common misnomer that patients will follow their physician's recommendations was discussed by Parsons

(1951). He theorized that in a doctor-patient relationship each will recognize and accept their role obligations as "healer" and "sick" person. Therefore, if the doctor acts appropriately and professionally, an automatically evoked response of the patient should be and is to comply. Such an assumption can be no more valid than to expect a worker's obedience to managerial directives.

Parson also described in his theory the "dynamic equilibrium" of our social system. Certainly there will be conflicts between a patient's normal social role and now acquired sick role expectations. The resolution of these conflicts may be demonstrated in noncompliance to the prescribed regime (Vincent 1971).

#### Factors Affecting Compliance

That many patients are not adhering to the medical regimes prescribed for them is a fact which can no longer be ignored. Many studies have been done in the area of noncompliance, but results are often confusing and inconclusive (Vincent 1971). Accumulating evidence has pointed to a few factors which may affect lack of adherence to a prescribed regime. To review the factors which affect compliance, three major areas are focused on: (1) characteristics of the patients, (2) the prescribed medical regime, and (3) the patient-physician relationship.

### Patient Characteristics

In general the studies that have examined demographic variables have been contradictory at best, and in most cases proven not to be a significant factor (Davis 1968). Sackett and Haynes (1976) suggested that data from these studies are conflicting because many were performed among clinic-based populations. This excludes those who never reached the system, i.e., those who never came, dropped out or attended irregularly. Community-based studies suggest that demographic factors may have a contributory role in the utilization of medical facilities. For instance affluent whites use health facilities more than those who are both poor and black (Sackett and Haynes 1976).

Most investigators have concluded that age is probably not significantly related to compliance (Marstons 1970). Davis (1968) reported no relationship between age and degree of compliance in sixteen studies reviewed. In 1957, Dixon, Strodling, and Woottoon reported 66 percent of women under twenty-nine years of age to be noncompliant. However, Davis and Eichorn (1968) reported in their Purdue Farm Cardiac study that the younger age group had the highest percentage of continued compliance.

There is some evidence that adolescents have a higher rate of noncompliance (Harper 1971). This may be

attributable to the declining parental influences, and a resulting swing toward noncompliant behavior. Harper (1971) also reported that in a number of studies reviewed, men are more compliant than women. Dixon, Strodling, and Woottoon (1957) reported in their study of patients taking medication for tuberculosis that 58 percent of the men were compliant while only 39 percent of the women adhered to the prescribed regime.

Contrary to the expectation, there has been little evidence to support the theory that higher educational levels increase compliance (Donabedian and Rosenfeld 1964). Most studies done in this area have not supported this theory. However, Morrow and Rabin (1966) reported a trend toward increased compliance with higher levels of education.

Family stability seems to be strongly associated with degree of compliance. Two studies examining rheumatic fever prophylaxis showed increased compliance in harmonious stable family environments (MacDonald 1963). Wilcox and Hare (1970) found the compliance rate to be greater in married patients which may relate to the effect of having a caring family member. Vincent (1971) reported noncompliance among Negroes and Puerto Ricans attributable to a decreased faith in medical science.

Davis and Eichorn (1968) in their study of cardiovascular patients interviewed two groups of farmers at four-year intervals to determine variables attributing to noncompliance. The first group consisted of 397 patients, the second group had 369 of those who participated the first time. They found that farmers with a high work orientation were less likely to comply than those who had a low work orientation. They also reported that a positive influence from family and friends affected their compliance. Most authors agree that in order to comply a patient must perceive that the reoccurrence of a given illness can have a serious impact on his present life (Rosenstack 1975). The nature of certain illnesses make it difficult for a patient to understand the susceptibility and severity to which he may be subjected. This occurs in the absence of obvious physical symptoms, such as in the case of hypertension. Likewise, acute minor illnesses are usually only symptomatic for a brief period of time (i.e., streptococcal pharyngitis). However, they require much more prolonged treatment for prophylactic purposes, and this may lead to noncompliance (Hulka et al 1976).

#### The Medical Regime

It is also important to consider the association between the prescribed medical regime and degree of

compliance. The medical regime may differ in terms of the amount and type of medication, the advice given by the practitioner, as well as various treatments that are prescribed. A review of the literature reveals two variables which most often influence noncompliance: (1) increasing complexity of the medical regime, and (2) the degree of change in behavior or personal habits that is required of the patient to adhere to his regime (Marstons 1970).

There are few dissenting reports concerning the degree of behavioral change the regime requires of the patient. Passive cooperation as is given by the staff in hospital or clinic settings is more easily achieved. A patient that must acquire new habits such as taking medications is much more likely to comply than someone who must change dietary or personal habits such as losing weight, drinking, or smoking.

There is limited information on the effect of cost for therapy in relationship to compliance. Two studies that were done suggested a negative effect; however, they were in a clinic setting with an indigent population where expense is not a primary concern (Sackett and Haynes 1976). The side-effects of medications have been identified as reason to interrupt or stop proposed therapy (Weber and Sather 1976). Hulka et al. (1976) identified that

increasing numbers of prescribed drugs and increasing complexity of scheduling is associated with higher rates of medications errors.

#### Patient-Physician Relationship

Considering the number of nonconclusive reports on variables affecting compliance of patients, some researchers have looked at how the patient-physician relationship may affect adherence. There are two consistent findings in the literature: (1) the relationship between the degree of supervision and compliance has a positive association, and (2) patient's stated level of satisfaction with the therapist and clinic is positively correlated with compliance (Sackett and Haynes 1976).

In addition to these factors, the type of communication and relationship appears to be of significance. There have been several studies to support this finding. Charney et al. (1967) found that a long-standing, warm relationship with a pediatrician correlated with compliance. They also stated that these children were more likely to complete a course of oral penicillin when prescribed by their usual physician, rather than a partner in practice. Davis (1966) reported a reciprocal failure on the part of the patient to comply when doctors fail to convey the significance of the regimen to the patient.

Hulka et al. (1976) studied a group of 357 patients with diabetes mellitus and congestive heart failure and how the doctor-patient interaction affected patients taking their medications. In this study all the interviews were taped, and data were extracted from these as well as the patient's medical records. They reported greater frequency of errors in commission and scheduling misconceptions. These were associated with an increasing complexity of the schedule and patients lack of understanding about the function of their drugs. They found no relationship in the pattern of drug errors and characteristics of the patient. These authors hypothesized that demographic variables are inconclusive in their relationship to patient compliance. Rather the information communicated to the patient by practitioners and the rapport developed is a more valid factor. Patients in this study with congestive heart failure exhibited significantly higher levels of compliance with better communication of instruction and information.

Although it is not supported, Francis, Korsch, and Morris (1975) theorized that a patient who is satisfied with the physician is more likely to carry out the medical advice than one who is not equally satisfied. However, it could be that high satisfaction might be the result rather

than the cause of higher compliance rates. They found that patients whose doctors were friendly and showed concern exhibited better compliance.

Ley and Spellman (1965) stated that patients often do not have sufficient information to follow medical advice. Patients tend to remember best what the doctor tells them first during a conference. Since much of the discussion regarding advice and the therapy are last in discussions, patients may forget these instructions. This situation might be alleviated somewhat by emphasizing important points initially in the discussion. Many authors in the field advocate that some type of patient education (available information) is crucial to the improvement of compliance (Weintaub 1975).

#### Measurement of Compliance

There is some available data to support the fact that most physicians overestimate their patients' compliance (Brown 1968). An important factor in this is the lack of reliability in what the patient tells the physician concerning the degree of adherence. Gordis, Markowitz, and Lillienfield (1968) did a comparison of reports given by patients and objective urine tests for children receiving prophylactic penicillin for rheumatic fever. The percentage of noncompliance from the patients was 9 to 15 percent.

However, the urine excretion tests revealed percentages from 22 to 35 percent. Another study done by Feinstein et al. (1967) showed similar results. Reported compliance from the patients was 27 percent, but a pill count disclosed a noncompliance rate of 45 percent.

A group of 160 outpatients with diagnosed peptic ulcer disease on antacid therapy were examined by Roth, Caron, and Bartholomew (1971). The amount of antacid consumed was measured by a tracer and bottle count. Patients were also scheduled for routine outpatient follow-up visits. Of the 160 patients, 96 completed the study. Their mean consumption rate for antacid was 54 percent of the amount prescribed. There was no direct correlation found between regularity of clinic attendance and the amount of antacid consumption. There was also no relationship found between prescription requests and the number of positive urine tests ( $R = .01$ ). The data presented suggest that there is little validity in available signs of compliance for medication consumption such as clinic attendance or the bottle count. The accurate intake of medicine should be measured with objective methods such as blood or urine levels (Marstons 1970).

Composite indices of compliance have been used with minimal effectiveness. The basic drawback to this

system relates to physicians overestimation and patient over-reporting of compliance. There is also loss of precision resulting from the combining of scores for some recommendations with those obtained from others (Marstons 1970). Another method of measurement that is utilized is follow-through on referrals. An example of this would be children who are screened for hearing and visual defects where referrals are made, and they return to the clinic as recommended.

#### Patient Education

The leading causes of death in this country today are heart disease, cancer, stroke, and accidents. Many experts agree that with the exception of the elderly, the majority of such deaths could have been prevented or at least delayed. There is increasing documentation related to the primary effect of one's life style in determining individual health status (Somers 1976). Many health care consumers and health care providers speak to lack of financial access as the primary barrier to good health today. The shortcomings in the health care system must be viewed critically in order that we as providers may insure access in the system.

To a large degree our health care system is geared towards immediate care in its delivery, which includes the

Emergency Room. Emergency Room personnel sew up the laceration, monitor and take care of the acute myocardial infarction, and the victim of suicide. However, the underlying problems which may have lead to these events such as poor diet, lack of exercise, careless driving, and even behavioral disturbances are rarely dealt with (Somers 1976). An effort must be made toward prevention and education of these primary causes of morbidity and mortality.

The question then becomes whose responsibility is it to educate the public concerning health? Ultimately, it is an individual's choice as to how he maintains his own health, but at least he should be made aware of potential health hazards, and methods he may adopt to maintain good health. It then seems logical that health care providers are in a primary position to educate the public concerning health.

Today's society is seeking health information and guidance. This is exhibited through the multi-million dollar business in do-it-yourself health literature, health foods, and health education programs that are in existence. There is evidence that when given guidance, people are willing to change their health related behavior as with cigarette smoking or alcohol abuse. The provisional death rate for 1975 was 9.0, the lowest on record for the United

States. A leading cardiologist, Jeremiah Stamler, attributed the improvement to fairly significant change in the habits of Americans that induce heart attacks, i.e., diet, exercise, and a decline in cigarette smoking (Somers 1976).

A number of other factors have contributed to bring health teaching into the forefront. Following World War II many servicemen returned in need of varying types of rehabilitation. Hospital stays are shortened, and convalescence in the home requires some preparation. In addition to these, many people with long-term illnesses are being treated and managed in their homes (Redman 1976). With the increasing interest of consumer health practices, technological advances of medicine, the necessity of patient education is upon us. Health professionals are recognizing the need for patient education and are establishing programs in health teaching.

Various methods of educating patients have been implemented. Belsky, Rennert, and Schnert (1975) used group sessions in a round table format to teach patients about their health and involvement in the health care system. A health education research center that includes a patient health library and health exhibit center for patients and the public has been set up at the

Kaiser-Permanente Medical Care Program in Oakland, California (Fylling and Etzwiler 1975).

In the past few years the federal government has also recognized the need for patient education and has been advocating funding for that purpose. In April 1975, the National Institute of Health-American College of Preventative Medicine Task Force identified six categories of health educational needs: patient education, school health education, occupational health education, community, national, and media programs. This report was introduced as a bill into Congress and passed in July 1975. Implied in this bill and also by national organizations such as the American Hospital Association is the responsibility for these being the hospital and other health care facilities (Somers 1976).

The actual implementation of a comprehensive consumer health education program has inherent problems such as organization, staffing, and availability of funds. The College of Medicine and Dentistry of New Jersey (CMDNJ) program which began in September of 1972, is one such example. However, their program has demonstrated the possibilities and successful methods of organizing such a program. The basic concept is a partnership between a medical school and the area community hospitals and

health care facilities to provide health education for patients in those facilities. The actual teaching is done by the staff of the institution, with the role of CMDNJ being one of leadership, guidance, coordination, and securing funds (College of Medicine and Dentistry New Jersey 1972).

An Office of Consumer Health Education was established and provided an advisory capacity. Records from this office indicate that approximately 40,000 patients have been reached through various programs. The money was initially provided with start-up grants averaging \$24,000.00 a year and some other private funding. Even with inherent problems of available and interested personnel, space and budgeting, the program is very successful. Presently it is the only program of this nature and may be instrumental in the development of other such programs throughout the country.

Legal implications have also stimulated interest in patient education. As early as 1898, giving instructions to a diabetic patient with an injured limb was considered a duty, with failure being considered abandonment (Redmon 1976). This is now extended to instruction related to prescribed medication and follow-up care (Jowers 1975). Morgan in 1974, advocated that patient education is to be a part

of the process of informed consent. A recent ruling in an Iowa court found that a physician could be tried for negligence if he fails to advise a patient properly (Krosnick 1974).

In 1973, the American Hospital Association established the patient's Bill of Rights which speaks to the rights of patients to receive information concerning their illness, the treatment, plans and expectations while in the hospital. The stance that nursing will take concerning a physician's adherence to the Bill of Rights has not been established (Modern Hospital 1973). Clearly the patient has a right to know about his illness and subsequent treatment. Storlie (1973) suggested the possibility of a more subtle reasoning or the hesitancy of health care providers in being informative and teaching their patients. For example, patients with chronic illnesses who learn to take care of themselves at home will require less frequent hospitalization. This situation could force closing down of some wards; thereby decreasing revenue of the institution.

#### Discharge Planning

There is a substantial group of patients characterized by the type and severity of their illness and availability of their personal resources who leave

hospitals in need of continued care and supervision (Donabedian and Rosenfeld 1962). The fact that many patients may not receive the care they need following discharge is partially due to the unavailability of appropriate agencies. Other factors involved include insufficient information to the patient, available sources that are not fully utilized, and either unwillingness or inability of the patient to comply with proposed medical recommendations (Donabedian and Rosenfeld 1962).

A major factor considered in the studies reviewed is the large number of recurrent readmissions to the hospital. Donabedian and Rosenfeld (1962) reported readmissions to the hospital in about one-fourth of patients within one year after discharge and in one-third of patients after two years of discharge. The problem of repeated hospitalization is clearly a factor to be considered in discharge planning. Governmental agencies, and third-party payers have found that effective discharge planning is a means of reducing health care costs. Pratt, Seligmann, and Reader (1957) reported a reduction of readmissions in a group of patients with congestive heart failure through patient education. Through continued care to the home, patients' conditions are managed better, and unnecessary

readmissions to the hospital are thereby reduced (Beaudry 1971).

As in the situation with patient education, the question becomes who is responsible for discharge planning? Beaudry (1971) advocated professionals from every discipline involved in care of the patient have this responsibility. For a large group of patients in Donabedian and Rosenfeld's (1962) study, "care" seemed to revolve around the hospital and outpatient clinic. Therefore, the hospital is in a position to assume a more aggressive and care-coordinating role in discharge planning for the patient.

#### The Role of Nurses in Health Teaching

The place of nursing in patient education is not clearly defined, particularly with regard to individual autonomy with which nurses may function. The inclusion of teaching as a responsibility for the nurse is a part of most curriculums in nursing education. The concern for this is shown as early as 1918 by National League of Nursing in a statement that nurses training dealt primarily with disease and neglected sufficient training in the area of preventional and educational factors which are essential to good care. In 1937, the curriculum guide stated "the nurse is essentially a teacher and agent of health in whatever field she may be working" (Redmon 1976,

p. 2). Many of the authors in nursing journals have spoken to the relevance of a teaching role in the nursing profession.

The reason for some nurses' noninvolvement in patient education has been documented in limited studies. Some do not feel prepared to teach and others cite work-related reasons such as lack of time, and poor staffing (Redmon 1976). However, it is clearly documented that nursing is in a key position to coordinate and assume the implementation of patient educational programs. Some patients do not feel comfortable seeking information from their physician, therefore, they look to an intermediary person. Many of the people who became coordinators in the CMDNJ programs were nurses.

Considering that preparation of the patient for home care is accomplished through some type of teaching activity, this seemingly emerges as an important component of the nurse's role in promoting optimal health and restoration of patients. Continuity of care cannot always await the initiation of a physician. John Byrne, President of National Home Health Agencies and Director of the Visiting Nurses Association stated that the nurse is becoming the most important figure in discharge planning (Lee 1977). He

attributes this to the nurse's training, experience, and direct involvement in patient care.

Isler (1975) in her article on discharge planning spoke to the fragmentation of information supplied to patients upon discharge, and the inherent necessity to provide some continuity and commitment in this area to reduce the number of recurrent illnesses and readmissions. In the last two to three years, a group of twenty nurses have been instrumental in organizing and implementing such a program for their area. The job of discharge planning for patients in these institutions is the sole responsibility for these coordinators. In April 1975, an amendment to the New York State Health Code stated that each hospital would have a specialized discharge program for its needs. It specified that there would be a discharge planning coordinator who would be responsible for the organization and implementation of a program. This person will be a professional nurse, a specially qualified social worker or other appropriate health care professional (Isler 1975).

The need to recognize those particular patients who are in need of follow-up care assistance is often difficult to predict. There are some characteristics of patients which may classify them as high-risk patients such as old

age, chronic illnesses, repeated hospitalizations the indigent population, obstacles in the home situation, limited family support, and lack of a job prospect upon discharge. These are general descriptions and the implementation of a social questionnaire for patient screening might be a method to predict those patients who are in special need of assistance (Donabedian and Rosenfeld 1962).

The existing need for discharge planning is clearly documented. More professionals are recognizing the psychosocial needs of patients and resulting improvements when such needs are met. Lack of communication and coordination among health professionals limits implementation possibilities for comprehensive discharge planning. The opportune position of nursing in this regard cannot be overlooked now or in the near future.

#### Discharge Planning in the Outpatient Department

With the spiraling costs of health care, the advent of Medicare and the number of diseases now being treated outside the hospital, outpatient services are becoming an essential component of patient care (Hoffman and Rockart 1969). Smith (1970) reported the admissions per bed for nongovernmental, nonprofit hospitals decreased approximately 15 percent during 1965 and 1967. In the same type of

hospital, the average number of outpatient visits increased by 15.2 percent. This trend may indicate an increasing emphasis on preventative care; however, it also reflects the third-party reimbursement for such services (Hoffman and Rockart 1969).

The need to make more effective utilization of outpatient services is considered to be more important now than ever before. More and more patients are utilizing outpatient facilities for primary medical care. Some of the shortcomings that exist in the system are cited as long waiting times, overcrowded conditions, rotating physician assignments, and personnel shortages. Often poor access into the system countered with difficulties after arriving prohibit patients from seeking such assistance.

Many clinics are looking at methods to implement effective patient educational programs. Caplan et al. (1976) set up an extensive study on the compliance of ambulatory patients with high blood pressure utilizing teaching programs conducted by nurse clinicians. After the study was completed, one of the nurses stayed to coordinate patient educational classes as a permanent member of the clinic staff. The role of nurses in reducing medication errors for a group of outpatients was shown by Hecht (1974). Serious error was reduced from 53 percent to 17

percent in the group that was provided with intensive teaching sessions by a nurse. Peoples-Veiga (1976) set up a teaching program for hypertensive patients in an outpatient clinic. Although this was not statistically analyzed, she reported that a posttest and consistently lower blood pressure readings on a significant number of patients indicate the success of her program.

A primary component to outpatient services extended by hospitals is the Emergency Department. The increasing number of patients being seen in the Emergency Room is a result of the rising use of Emergency Room facilities for primary medical care and increasing knowledge and growth seen in Emergency Medicine has stimulated the opening of many more Emergency Rooms and expansion of those already in existence to provide comprehensive care. Patients may feel they can be seen more quickly, therefore, they seek this service instead of a clinic (Webb 1970).

At the present time approximately one-third of all outpatient visits are made through the Emergency Room (Brook, Morris, and Schechter 1973). Fletcher, Appel, and Burgois (1974) reported that 40 percent of the ambulatory visits in 1970 occurred in large cities, particularly hospitals associated with medical schools. It becomes

apparent that metropolitan hospitals have assumed a significant role in ambulatory patient care.

In a busy Emergency Room, patients who present nonemergent conditions may receive little attention. They may be present with a previously undiagnosed condition such as hypertension and after having waited five hours are often quickly seen and treated, given their prescriptions and/or clinic appointment, then directed to the nearest exit. Certainly life-threatening situations must take priority; however, as the statistics indicate, the problem of rising frequency of Emergency Room visits for nonemergent conditions must be addressed. Particular to this is the major problem of noncompliance among Emergency Room patients in regard to follow-up care (Fletcher, Appel, and Burgois 1973).

Studies have documented the increasing use of Emergency Rooms for nonemergent conditions, but very few have examined the effectiveness of this nonemergent care being given. Brook and Stevenson in 1970 documented a study and Brook, Morris, and Schechter in 1973, respectively. The first study consisted of 141 patients with nonacute gastrointestinal symptoms who were referred for follow-up X-ray studies. Ninety-four of the 141 patients completed their diagnostic X-ray studies.

Thirty-seven out of 98 patients having a diagnostic X-ray knew whether it was normal or abnormal and only 14 of the 38 with an abnormal X-ray appeared to have had proper therapy following diagnosis. Thus, overall management of the initial 141 patients resulted in effective medical care for 38 patients (27 percent), ineffective care for 84 (60 percent), and neither for 26 patients (15 percent).

Brook, Morris, and Schechter's (1973) study examined a group of 166 patients with gastrointestinal disturbances. Chart reviews and an interview four months after the initial visit were done to examine the medical care process and significance between the patient's process through the system and his residual capacity. From the available data the continuity of care was concluded to be acceptable for 41 of 166 patients, or approximately 25 percent. These results are very similar to those in their 1970 study of Emergency Room patients.

The fact that two studies three years apart produced such similar data is not only coincidental, but alarming in terms of the apparent poor care these patients received. Seemingly this points to inefficient and inadequate medical care provided at a considerable expense. Brooks, Morris, and Schechter (1973) suggested that treatment with drugs and reassurance for patients with

gastrointestinal disturbances might increase compliance and in turn be less expensive.

A factor that has been examined concerning Emergency Room follow-up is the high incidence of failure to keep clinic appointments. Patients cited one reason for not keeping their clinic appointments was poor information received from the hospital (Fletcher, Appel, and Bourgois 1974). Fletcher, Appel, and Bourgois (1974) conducted a study to determine if the intervention of an Emergency Room follow-up clerk would affect compliance among Emergency Room patients requiring clinic follow-up. There were 291 patients randomized in two groups. The intervention group was reminded by the clerk of their appointments via telephone or mail. In addition to this, the clerk followed them to ensure that X-ray examinations were completed. Eighty percent of the intervention group returned to the clinic, whereas only 58 percent of the control group returned ( $p < 0.001$ ). Higher compliance rates were seen with intervention regardless of age, race, sex, employment status, or other demographic variables. Patient care was significantly improved by the addition of the follow-up clerk (Fletcher, Appel, and Bourgois 1974).

Reports from studies concerning broken appointments vary from 19 to 58 percent (Schroeder 1973).

Schroeder (1973) studied a large group of 503 patients who were assigned outpatient clinic appointments. They were divided into four groups: (1) control (24.6 percent no show), (2) postcard (13.9 percent no show), (3) nurse call (19.5 percent no show), and (4) physician call (17.6 percent no show). There was no appreciable difference in demographic characteristics of the two groups. In this study, postcard notification was significantly shown to be the best method to reduce missed appointment rates. Time that elapsed between appointments was not found to be related to broken appointment rates.

Results of these studies seem to implicate that an important consideration in reducing noncompliance of Emergency Room patients who require follow-up through the clinic is some type intervention by an intermediary person. The implementation of an established program of discharge planning by nurses is documented by two institutions in the literature. A large teaching hospital in New York City recognized the need for such a position and entitled it the "Conference Nurse" (American Journal of Nursing 1976). Miller (1978) stated that patient teaching in the Emergency Department is as important as any other place in the hospital. Patients may be taught to care for wounds at home and explained complications which might ensue, thereby

decreasing the likelihood of infection. By providing the patient with this information, phone calls to the Emergency Room concerning their problem may be reduced. In addition to this, readmissions for identical problems or preventable complications of the original problem can be reduced.

The importance of providing the patient with information which he has a right to know applies to every aspect of hospital and outpatient services including the Emergency Room. Emergency Room nurses are often deprived of satisfaction gained through follow-up of patients (Brown 1976). The opportunity to be involved in a patient-teaching role could not only be rewarding but is a step that needs to be taken in the interest of overall patient care.

#### Summary

This study has been undertaken to determine the effectiveness of nurse teaching to patients prior to Emergency Room discharge. As background information, this chapter has discussed the available literature concerned with the area of patient compliance and factors which may affect it. The information here supports previous findings that demographic variables are contradictory and basically not a significant factor.

Noncompliance is affected by increasing complexity of the medical regime and the degree of behavioral change required by the patient (Marstons 1970). There is documented evidence that areas of the client-therapist relationship affect the degree of compliance. Satisfaction with the therapist, good communication, and close supervision are some areas that have been cited as having a positive effect on compliance.

Teaching patients to care for themselves in the home setting has been taught to and practiced by registered nurses for many years. Yet from the literature it is seen that not all nurses take the responsibility to provide patient education. Some nurses are aware of the need but do not feel they have time to provide it (Redmon 1976). Clearly, the nursing profession has an inherent role in the process of patient education, however, the exact position and responsibilities have not been defined.

## CHAPTER III

### PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The present investigation conforms to Issac's definition of a correlational study:

. . . the purpose of a correlational study is to investigate the extent to which one factor corresponds with variations in one or more other factors based on correlation coefficients. (Michaels and Issac 1976, p. 14)

The independent variable in this study was nurse teaching. The dependent variable was patient compliance.

This correlational study was done to determine the extent to which patient compliance is affected by nurse teaching following Emergency Room discharge. The study was carried out using outpatients in a large hospital in Dallas, Texas. The description of the setting, the derived sample, the procedure for data collection, the tool used for collection of data, and the method for analysis of data will be included in this chapter.

#### Setting

The setting for the collection of data was Parkland Memorial Hospital in Dallas, Texas. The Emergency Room and outpatient clinic were utilized in the selected

institution. The Emergency Room has eighty-three examining rooms and is subdivided into the areas of major medicine, minor medicine, surgery, pediatrics, psychiatry, and obstetrics and gynecology. The average number of patients seen daily in the Emergency Room is approximately five hundred, and there are sixty-four nurses on staff. A conference room which is located in the surgery area was utilized for the patient teaching sessions. The outpatient clinic consists of approximately forty clinics of all subspecialties of medicine. The average number of patients seen daily is eleven hundred. The clinics that were used included Emergency Room follow-up, general surgery, orthopedic, burn, and neurosurgery. Permission from the agency utilized for the study was obtained prior to the collection of data (appendix A).

#### Population and Sample

The population for this study was those patients who came to the Emergency Room on the specified days for the collection of data. Patients come to the Emergency Room for any number of stated complaints, and they are always given the opportunity to be seen and treated for their problem.

The population from which the sample was selected was composed of patients eighteen years of age or over,

legal residents of the hospital district, those treated and released for lacerations, minor burns, orthopedic injury, mild closed head injury, or any combination of these. Written consents were obtained from the patients for inclusion in the study (appendix A).

The sample contained forty patients who were randomized into two groups. Patients in the control group (A) were admitted and discharged through routine Emergency Room procedure. Patients in the instructed group (B) were asked to remain in the Emergency Room for a fifteen- to thirty-minute conference with the nurse concerning their follow-up care and home care treatment plans.

Prior to the beginning of the study, a list of numbers one through forty were written on a sheet of paper. By use of a random number table, twenty numbers were extracted using the last four digits, and placed beside the corresponding number on the list. As each patient was admitted into the study, the list was used to determine in which group he would be placed.

#### Tool

The instrument that was used in this investigation was designed by the investigator to meet the stated purposes. The data flow sheet was used to record all the necessary information from each subject (appendix B). It

was divided into five sections: (1) general information to include patient's identification number, age, race, sex, employment status, marital status, educational level, chief complaint, and discharge diagnosis, (2) home treatment plan as prescribed by the physician (if at all) and date of follow-up clinic appointment, (3) instructions and teaching done by the investigator, (4) follow-up data from the clinic, and (5) summary and final evaluation.

The third section of the data flow sheet for recording instruction given by the nurse and questions asked by the patient was utilized for the instructed group (B) only. The Emergency Room utilized in this study had standard home instruction sheets for lacerations, minor burns, orthopedic injuries, and mild closed head injury. These sheets are routinely given to all patients as necessary upon discharge from the Emergency Room (appendix C).

The fourth section was follow-up data and included the following information for both groups: (1) if they kept the clinic appointment or not, (2) reason why if it was not kept, (3) any return visits at the Emergency Room and purpose for their visit, (4) any evidence of infection or complication from the initial injury, and (5) if the patient considered the instruction they received to be adequate. The final section was used for the summarization

of information obtained and any other pertinent facts related to the particular subjects.

#### Data Collection

The investigation was read and approved for study by the Human Rights Research Review Committee of Texas Woman's University in Denton, Texas (appendix A). This included that the patient was completely informed about the investigation, given opportunity to ask questions and could withdraw from the study at any time. Patients were informed as to the risks involving their invasion of privacy, and the possibility of being individually identified. Patients who read the consent and agreed to participate were included in the study.

Patients who agreed to participate and were assigned to the control group (A) were seen briefly to obtain this permission. Information about their clinic appointment and home care as prescribed by the physician was obtained from the Emergency Room record and recorded on the data flow sheet. Patients who were assigned to the instructed group (B) were taken to a conference room by the investigator for instruction and discussion of their prescribed home care treatment plans prior to discharge. Patients were given ample opportunity to ask questions and participate as they desired.

Patients from both groups were then followed by the investigator in the assigned outpatient clinic for the initial visit only. Information obtained during these visits included: if they kept their appointment, any evidence of infection or complication from the initial injury, and if they returned to the Emergency Room at any other time. Patients' medical records were utilized to obtain information that was unobtainable during clinic follow-up visit. Any patient who did not keep their initial follow-up visit was sent a letter in an attempt to ascertain the reason it was not kept (appendix B).

#### Treatment of Data

The significance of differences between the two groups for compliance was assessed by the Fisher's Exact Probability Test (Siegal 1956). For the purposes of this study, differences exceeding the 95 percent level of statistical confidence ( $p < 0.05$ ) were considered statistically significant. Frequency distributions and percentage reports of demographic variables were done as well. Questions asked by the patients and reported reasons for not returning to the clinic were summarized in tally format.

## CHAPTER IV

### ANALYSIS OF DATA

The problem of this study was to determine if there was a relationship between patients receiving instruction by a nurse prior to discharge from the Emergency Room and their compliance as outpatients. Compliance was defined as those patients who kept their initial follow-up clinic visit to the outpatient department. Patients were followed through their initial visit only.

In this chapter the data concerning demographic characteristics of the patients, questions asked by the patients and reported reasons for not returning to the clinic will be presented. In addition, a comparison analysis of the compliance in both groups shall be given, followed with a discussion of the tested hypothesis. The chapter concludes with a summary of the findings in this study.

#### Description of the Sample

The sample consisted of forty patients. Twenty patients were randomly assigned to each group. Patients who participated in the study were over eighteen years of age, a resident of the county, and not admitted to the

hospital from the Emergency Room. They were seen for one or a combination of the following: (1) laceration, (2) orthopedic injury, (3) minor burn, and (4) mild closed head injury. Patients in the control group were admitted and discharged through routine Emergency Room procedures. Patients in the instructed group had teaching instructions by a nurse prior to Emergency Room discharge.

The total patient sample contained twenty-eight men and twelve women (table 1). These patients included sixteen Caucasians, seventeen Negroes, and seven Latin Americans. Although both groups had a higher percentage of male patients, the percentage of males in the nurse instructed group (B) was 10 percent higher than the control group (A). From the studies that have been done in this area, it is unlikely that this factor had any significant effect on the results.

TABLE 1

## NUMBER AND PERCENTAGE OF PATIENTS CLASSIFIED BY SEX

Sex	Group A	Group B	Total
Male	13 (65%)	15 (75%)	28 (70%)
Female	7 (35%)	5 (25%)	12 (30%)

The patients ranged in age from eighteen to sixty-seven years. The cluster of ages was found to be between eighteen and forty-two years (table 2). The mean age for control group (A) was thirty years, and the nurse instructed group (B) was thirty-six years. The results of most investigations have not found age to be a significant factor in patient compliance (Marstons 1970). However, Davis (1968) reported that age groups have variations in their compliance. Younger people, under the age of forty-five, are more likely to continue a prescribed regime than those over forty-five years of age. Since both groups were fairly young, it seems that they would both be likely to comply, however, the mean age for the groups varied by six years. A t-test was done which showed  $T = -1.61$  and  $P < .115$ . The difference in their ages was not found to be statistically significant.

The two groups were fairly similar according to marital status, although the instructed group had 15 percent more married patients than the control group. Employment status for the two groups was exactly the same, with 60 percent of the patients being employed.

In summary of the demographic variables, both groups had more males than females, race distribution showed that both groups contained a 60 percent minority,

TABLE 2  
 NUMBER AND PERCENTAGE OF PATIENTS CLASSIFIED BY AGE

Age in Years	Group A	Group B	Total
18 - 22	7 (35%)	4 (20%)	11 (27.5%)
25 - 27	2 (10%)	1 ( 5%)	3 ( 7.5%)
28 - 32	6 (30%)	3 (15%)	9 (22.5%)
33 - 37	1 ( 5%)	3 (15%)	4 (10.0%)
38 - 42	0	5 (25%)	5 (12.5%)
43 - 47	2 (10%)	1 (5%)	3 ( 7.5%)
48 - 52	1 ( 5%)	0	1 ( 2.5%)
53 - 57	1 ( 5%)	2 (10%)	3 ( 7.5%)
63 - 67	0	1 ( 5%)	1 ( 2.5%)
Total (n)	20	20	40

and the instructed group (B) had a mean age six years greater than the control group (A). The majority of patients were employed and married.

As stated in the beginning of this study, patients were admitted with one or more of the following complaints: (1) laceration, (2) orthopedic injury, (3) minor burn, and (4) mild closed head injury (table 3). Eighty-seven percent of the patients in the study had either a laceration or orthopedic injury. Patients were categorized by

TABLE 3

## NUMBER AND PERCENTAGE OF PATIENTS CLASSIFIED BY INJURY TYPES

Injury Type	Group A	Group B	Total
Laceration	10 (50%)	7 (35%)	17 (42.5%)
Orthopedic	6 (30%)	12 (60%)	18 (45.0%)
Burn	4 (20%)	1 ( 5%)	4 (10.0%)
Head	0	1 ( 5%)	1 ( 2.5%)

type of injury according to the clinic they first attended. Two patients in the study had a combination injury which was not listed in the table. Their combination was laceration/mild closed head injury in one case and laceration/orthopedic in the other.

The average length of time between discharge from the Emergency Room and first clinic appointment was eight days in the control group (A), and nine days in the nurse instructed group (B). There does not appear to be any significant correlation between the length of time from Emergency Room discharge and first clinic appointment.

Neither group had an obvious or documented infection postinjury of those patients who kept their clinic appointment. Thirteen out of twenty patients in the nurse instructed group returned, none of whom had an infection. Five out of twenty patients in the control group who

returned did not have an infection. Since twenty-two patients did not return to the clinic, it is not known if they acquired an infection. It is difficult to determine if teaching had any influence on decreasing the incidence of infection.

Return visits to the Emergency Room before or after their follow-up clinic appointment was documented in only two cases, one in each group. The reasons cited were: to request a stronger pain medication following injury, and a patient had missed his appointment to the clinic.

Each patient who returned to the outpatient clinic for his appointment was asked if he felt like the instructions received upon discharge from the Emergency Room were adequate. Three patients out of five in the control group (A) stated yes, the other two patients did not feel they had adequate instruction. In the nurse instructed group (B) all thirteen patients stated that they felt like their instructions had been adequate. The reliability of their responses is questionable since they were asked by the person who taught them.

A total of thirty-eight questions were asked by the patients in the nurse instructed group (B) during the conferences (appendix D). They are categorized into five basic areas in order of their frequency: ten questions on care of the wound, nine related to getting to the clinic,

nine concerned the initial injury, six concerned medications, and three questions related to care at home.

A total of twenty-two patients in both groups did not keep their appointments. A letter was sent to each of these patients with a self-addressed, stamped envelope for returning the letter. The response to this was quite poor, and only minimal information was obtained. Seven letters were not returned at all, and eight letters were returned to the investigator's house because of incorrect addresses. Of the responses obtained, reasons cited for not returning to the clinic were: it was too long to wait, no transportation, lost appointment slip, and patient took stitches out himself.

Hypothesis Tested: The Effect of Nurse  
Teaching on Compliance

The following null hypothesis was tested in this investigation: Patients receiving instruction about their home care treatment from a nurse will not manifest a significant difference from those patients who receive routine printed instructions prior to discharge from the Emergency Room.

The measurement of compliance was determined to be those patients who kept their initial follow-up clinic visit. Five out of twenty patients in the control group

(A) kept their appointment (25 percent). Thirteen out of twenty patients in the nurse instructed group (B) kept their appointments (65 percent (table 4).

TABLE 4  
NUMBER AND PERCENTAGES OF COMPLIANCE  
CLASSIFIED BY TYPE OF INJURY

Type of Injury	Group A	Group B
Laceration	2 of 10 (20%)	4 of 7 (57%)
Orthopedic	2 of 6 (33%)	9 of 12 (75%)
Burn	1 of 4 (25%)	0
Head	0	0 of 1 (0%)
Total	5 of 20 (25%)	13 of 20 (65%)

This difference was found to be statistically significant ( $P = 0.012$ ) at the .05 level of significance using Fisher's Exact Probability Test. The null hypothesis was rejected since patients in the nurse instructed group (B) did manifest a significantly higher incidence of compliance from those patients in the control group (A) who received the routine printed instructions in the Emergency Room. The independent variable of teaching prior to discharge may have a relationship to higher levels of compliance among outpatients.

### Findings of the Study

Forty patients were investigated in order to determine if teaching intervention by a nurse prior to Emergency Room discharge had any effect on patient compliance. Patients were randomly divided into two groups. The patients in the instructed group had a teaching session with the nurse investigator prior to their discharge from the Emergency Room. Compliance was defined as those patients keeping their initial follow-up visit to the out-patient clinic. Five of twenty patients in the control group (A) kept their initial appointment (25 percent). Thirteen of twenty patients in the nurse instructed group (B) kept their appointment (65 percent).

This difference was found to be statistically significant ( $P = 0.012$ ) at the .05 level of significance using Fisher's Exact Probability Test. The most frequently seen injuries were lacerations and orthopedic injuries. Of the four types of injuries, orthopedic patients had the highest percentage of compliance in both groups. In the control group (A) patients seen and treated for lacerations were the least compliant (20 percent). The instructed group (B) had a lower incidence of compliance in patients with lacerations also (57 percent).

The number of patients seen in the Emergency Room with mild closed head injury is not adequately reflected in the derived sample. The reason for this is that most of these patients are sent home with warnings and instructed to return to the Emergency Room immediately if a complication should develop. They are not given routine follow-up appointments and, therefore, could not be included in the study.

Demographic variables showed a considerable amount of similarity among the two groups. One difference which was statistically analyzed and found not significant was a mean age difference of six years. This study concurs with previous attempts to link demographic variables to compliance with no significant findings.

Patients asked questions concerning care of the wound, about getting back to the clinic, about their initial injury, and medications. Patients asked many questions during the conference sessions, which seems to indicate that many things are either unclear or not explained at all before they are discharged from the Emergency Room.

Of the eighteen patients from both groups that returned for their initial appointments, nobody had an obvious or documented infection postinjury. Twenty-two

patients did not keep their appointments, and it is not known whether they acquired an infection.

Since there was such a poor response to the letters sent to those patients not keeping their appointments, it is difficult to identify what their reasons for not returning were. Of the responses obtained, the most frequently stated reasons was that it was too long to wait in the clinic. No transportation, lost appointment slip, and patient stated he took the stitches out himself were the other reasons cited.

## CHAPTER V

### SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

#### Summary

This study was conducted to determine if a relationship existed between patient teaching and compliance following Emergency Room discharge. Compliance was defined as those patients who kept their initial follow-up visit to the outpatient clinic.

Forty patients were included in the study and were randomly assigned to two groups. Patients in the control group were admitted and discharged through routine Emergency Room procedure, being given a printed instruction sheet concerning home care of their injury. Patients in the experimental group were asked to spend ten to fifteen minutes with the nurse investigator at which time their home care treatment was explained carefully to them. Patients were allowed ample opportunity to ask questions during these sessions.

Patients from both groups were followed through the outpatient clinic for their initial visit only. Patients not keeping their appointment were sent a letter in an attempt to ascertain the reason it was not kept.

Information obtained during these visits included: If they kept the appointment, noting any evidence of infection or complication from the initial injury and if they returned to the Emergency Room at any time prior to their clinic appointment and the reason why.

The hypothesis for this investigation was: Patients receiving instruction by a nurse will not manifest a significantly higher incidence of compliance from those patients receiving the routine printed instructions prior to Emergency Room discharge. In the control group (A) five out of twenty patients returned for their initial clinic appointment (25 percent). In the nurse instructed group (B) thirteen out of twenty patients kept their initial clinic appointments (65 percent). This difference was found to be statistically significant ( $P = 0.012$ ) at the .05 level of significance using Fisher's Exact Probability Test.

The null hypothesis was rejected in this investigation since patients in the nurse instructed group did manifest a higher incidence of compliance from the control group who received the routine printed instruction sheets about home care. Previous studies have demonstrated that a factor involved in the compliance of patients is the provision of sufficient information (Fletcher 1975). It

seems probable that the independent variable, teaching by a nurse before discharge, may have influenced their compliance.

Patients with orthopedic injuries exhibited the highest percentage of compliance in both groups. It is possible that the nature of this injury tends to have higher compliance rates associated with it, although that was not investigated in this study. Patients with lacerations and orthopedic injuries were the most frequently seen in both groups.

The number of patients with mild closed head injury is not adequately reflected in the sample. The reason for this is that most of these patients are sent home with warnings and instructed to return to the Emergency Room immediately if a complication should develop. They are not given routine follow-up appointments, therefore, could not be included in the study. This factor was not recognized by the investigator when criteria for the sample was established.

Of the eighteen patients who kept their initial appointment, none returned with a postinjury wound infection. It is not known if the twenty-two patients who did not keep their appointments acquired an infection.

Demographic variables showed a considerable amount of similarity among the two groups. One difference which was statistically analyzed ( $T = 1.61$  and  $P < .115$ ) and found to be not significant was a mean age difference of six years.

Questions asked by the patients included those related to care of the wound, the clinic appointment, the initial injury, and medications. The nature and type of questions asked by the patients make it seem likely that some patients are not well informed about how to take care of themselves at home and what is expected of them.

Reasons for not returning to the clinic were obtained with minimal success, only seven of twenty-two patients responding. These reasons cited were: Too long to wait--3, no transportation--2, lost appointment slip--1, and patient took stitches out himself--1.

### Conclusions

According to the findings and within the limitations of this study, the following conclusions may be made:

1. Nurse teaching prior to discharge from the Emergency Room may have a relationship to higher compliance rates of keeping clinic appointments

2. The personal one-to-one contact received in teaching sessions with the nurse may have influenced results of this investigation

3. Instructions sheets for specific injuries given to the patients in the Emergency Room before discharge may not be adequate for understanding and utilization by the patient

#### Implications

Implications of this investigation will be directed to nursing administration, nursing education, nursing practice, and research. Nursing administration should be made aware of the high rate of noncompliance among Emergency Room patients who are not returning for follow-up care through the outpatient clinics. The education of patients is an integral part of this institution's philosophy, therefore, consideration should be given to the possibility of having a registered nurse or other qualified person to teach patients before they leave the Emergency Room. This could be given to a nurse as a sole responsibility, or staff nurses in the Emergency Room could rotate through the position as they do presently.

Secondly, there should be an evaluation and possible revision made for the home care instruction sheets that are

given to Emergency Room patients. The wording and explanations may need to be more concise and simplified in order to enhance the patient's understanding and utilization of them.

Nursing educators, nurses, and students of nursing must be cognizant of the fact that patients are assumed to know too much and often leave the institution not understanding how to carry out instructions given them. Communication skills and the teaching of patients are vital parts of the teaching process and should be emphasized to students.

Nurses in practice have a responsibility to teach patients in all settings of health care, including the Emergency Room. Emergency Room nurses should be made aware of the high incidence of noncompliance among their patients. These nurses are not involved in one-to-one contact with the same patients on a daily basis, and are often removed from the idea of patient education. Yet, education of patients in the outpatient setting is equally important in enabling patients to become autonomous and in providing good follow-up care.

#### Recommendations

The recommendations for further research relative to this investigation are as follows:

1. Further study should be undertaken employing the same investigative design, but increasing the number of patients in order to obtain additional supportive data

2. Further study should be done for other types of Emergency Room patients using similar investigative design

3. Further study should be undertaken utilizing a design which would allow other measures of compliance

4. Further study should be done using only orthopedic patients to evaluate their compliance rate

APPENDIXES

APPENDIX A

TEXAS WOMAN'S UNIVERSITY  
COLLEGE OF NURSING  
DENTON, TEXAS

DALLAS CENTER  
1810 Inwood Road  
Dallas, Texas 75235

HOUSTON CENTER  
1130 M.D. Anderson Blvd.  
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY\*

THE Dallas County Hospital District (Parkland Hospital)  
GRANTS TO Carol Goodykoontz

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

The Relationship Between Patient Teaching and Follow  
Up Care after Emergency Room Discharge.

(see attached proposal)

The conditions mutually agreed upon are as follows:

1. The agency (may) (~~may not~~) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (~~may not~~) be identified in the final report.
3. The agency (wants) (~~does not want~~) a conference with the student when the report is completed.
4. The agency is (willing) (~~unwilling~~) to allow the completed report to be circulated through interlibrary loan.
5. Other: \_\_\_\_\_

Date 8/7/73

Carol L. Goodykoontz  
Signature of student

Barbara A. Crepee *AP's - 8.7.73*  
Signature of Agency Personnel  
Barbara A. Crepee  
Signature of Faculty Advisor

\*Fill out and sign three copies to be distributed as follows: Original -- Student; first copy - agency; second copy - T.W.U. College of Nursing.

## TEXAS WOMAN'S UNIVERSITY

## Human Research Committee

Name of Investigator: Carol S. Goodykoontz Center: Dallas

Address: 6109 Belmont Avenue

Dallas,

Texas 75214

Dear Ms. Goodykoontz:

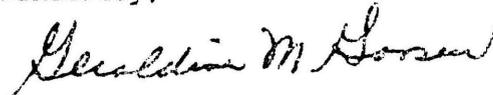
Your study entitled The Relationship Between Patient Teaching and Follow Up Care After Emergency Room Discharge

has been reviewed by a committee of the Human Research Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education and Welfare regulations require that written consents must be obtained from all human subjects in your studies. These forms must be kept on file by you.

Furthermore, should your project change, another review by the Committee is required, according to DHEW regulations.

Sincerely,



Chairman, Human Research  
Review Committee  
at Dallas.

## APPLICATION TO HUMAN RESEARCH COMMITTEE

Subject: Research and Investigation Involving Humans.

This abbreviated form is designed for describing proposed programs in which the investigators consider there will be justifiable minimal risk to human participants. If any member of the Human Research Review Committee should require additional information, the investigator will be so notified.

One copy of this statement and a specimen Statement of Informed Consent should be submitted at least two weeks before the planned starting date to the chairman or vice chairmen on the appropriate campus.

Title of Study: The Relationship between Patient Teaching and  
Follow Up Care after Emergency Room Discharge

Chairman of Thesis Committee Dr. Barbara Carper

Thesis Committee Members: Geraldine Goosen

Jane Dawson

Graduate Student: Carol S. Goodykoontz

Estimated beginning date of study: August 1978

Estimated duration: 3 months

Address where approval letter is to be sent: Carol Goodykoontz

6109 Belmont Avenue, Dallas Texas 75214

1. Brief description of the study (use additional pages or attachments, if desired, and include the approximate number and ages of participants, and where they will be obtained).

(see attached sheet)

2. What are the potential risks to the human subjects involved in this research or investigation? "Risk" includes the possibility of public embarrassment and improper release of data. Even seemingly nonsignificant risks should be stated and the protective procedures described in 3. below.

(see attached sheet)

3. Outline the steps to be taken to protect the rights and welfare of the individuals involved.

(see attached sheet)

4. Outline the method for obtaining informed consent from the subjects or from the person legally responsible for the subjects. Attach documents, i.e., a specimen informed consent form. These may be properly executed through completion of either (a) the written description form, or (b) the oral description form. Specimen copies are available from departmental chairmen. Other forms which provide the same information may be acceptable. A written description of what is orally told to the subject must accompany the oral form.

(see attached sheet)

5. If the proposed study includes the administration of personality tests, inventories, or questionnaires, indicate how the subjects are given the opportunity to express their willingness to participate. If the subjects are less than the age of legal consent, or mentally incapacitated, indicate how consent of parents, guardians, or other qualified representatives will be obtained.

(see attached sheet)

Signed	<u>Barbara A. Casper</u> Program Director	Date	<u>21 June 1978</u>
Signed	<u>Carol S. Gordy-Kuath</u> Graduate Student	Date	<u>21 June 1978</u>
Signed	<u>(Guns et al.)</u>	Date	<u>                    </u>
Signed	Dean, Department Head, Director		

Date received by committee chairman: June 22, 1978

1. The purpose of this study is to determine the effect of patient teaching by a nurse prior to discharge from the Emergency Room. The study will consist of forty patients who will be selected by use of the random table of numbers. The control group will be followed up after discharge from the Emergency Room in the outpatient clinic only for one time. The treatment group will have a 15 to 30 minute conference with the investigator prior to discharge from the Emergency Room in relation to their home care treatment plans and follow-up care. Both groups will be evaluated in terms of compliance, which is defined in this study as those patients who keep their clinic appointment. Patients in both groups will be eighteen years of age or older.

2. (a) Time spent talking with the nurse in the Emergency Room (15 to 30 minutes), the outpatient clinic (10 minutes), and time to respond to a letter if one is sent.

(b) The investigator will have access to the medical record which may involve invasion of privacy.

3. Records (data forms) that will be used for collecting information will be kept in my possession at all times. A code number will be used for each patient

involved in the study instead of a name, so that the risk of public embarrassment is very minimal.

4. Each patient that is involved in this study will be of legal age to sign a written consent form. Permission will be obtained only after they have read and signed the attached document.

5. Each patient who does not return to the out-patient clinic for his/her follow-up appointment will have a letter sent to their home in order to ascertain the reason why it was not kept. These letters will include a self-addressed, stamped enveloped to be returned to the investigator's home. There will be no name or code number on these return letters, therefore, there will be no reason to correlate the response with a particular patient.

Consent Form--Study Group A

1. My name is Carol Goodykoontz and I am a graduate student in Nursing at Texas Woman's University. I am presently working on my thesis which is a research project. The purpose of this study is to investigate the effect of patient teaching by a nurse in the Emergency Room prior to discharge from there. As a participant in this study, I understand that the nurse will visit me in the outpatient clinic one time. The information about my follow-up care which is obtained at this time will be recorded and used for data in this study. The investigator will keep these records in her possession at all times, and a code number will be used instead of my name. If I do not keep my clinic appointment, I may expect a letter from the nurse concerning the reasons it was not kept. I will be asked to respond to that letter.

2. The procedures and/or investigations described above involve the following possible risks or discomforts:

a. Time spent talking with the nurse in the outpatient clinic (about 10 minutes), and time to respond to the letter is sent to me.

b. The investigator will have access to my medical record which may involve invasion of my privacy.

4. The procedures and investigations which have been explained to me may be beneficial by improving follow-up care of Emergency Room patients in the future.

5. I understand that I may terminate my participation in the study at any time.

Signed \_\_\_\_\_

Dated \_\_\_\_\_

Witness \_\_\_\_\_

Consent Form--Study Group B

1. My name is Carol Goodykoontz and I am a graduate student in nursing at Texas Woman's University. I am presently working on my thesis which is a research project. The purpose of this study is to investigate the effect of patient teaching by a nurse in the Emergency Room prior to discharge from there. As a participant in this study, I agree to have a 15 to 30 minute conference with the nurse investigator to discuss the home care treatment and follow-up care of my injuries. I will have opportunity to ask questions during this time. The nurse will visit me one time in the outpatient clinic when I come for my appointment. The information which is obtained during both of these visits will be recorded and used for data in this study. The investigator will keep these records in her possession at all times, and a code number will be used instead of my name. If I do not keep my clinic appointment, I may expect a letter from the nurse concerning the reason it was not kept. I will be asked to respond to that letter.

2. The procedures and/or investigations described above involve the following possible risks or discomforts:

a. Time spent talking with the nurse in the Emergency Room (15 to 30 minutes), and in the outpatient clinic

(10 minutes). Time spent to respond to a letter if I miss my clinic appointment.

b. The investigator will have access to my medical record which may involve invasion of my privacy.

3. The procedures and investigations which have been explained to me may be beneficial to me by having assistance and direction in taking care of my injuries after leaving the Emergency Room. I will also have opportunity to ask questions about things I did not understand from the doctor. This investigation may be a means of improving follow-up care of Emergency Room patients in the future.

4. I understand that I may terminate my participation in the study at any time.

Signed \_\_\_\_\_

Dated \_\_\_\_\_

Witness \_\_\_\_\_

APPENDIX B

Data Flow Sheet

## I. General Information

A. Patient's # \_\_\_\_\_ Educational status \_\_\_\_\_  
\_\_\_\_\_

B. Date \_\_\_\_\_ Marital status \_\_\_\_\_

C. Age \_\_\_\_\_ Race \_\_\_\_\_ Sex \_\_\_\_\_ Employment \_\_\_\_\_

D. Chief Complaint \_\_\_\_\_  
\_\_\_\_\_E. Discharge Diagnosis \_\_\_\_\_  
\_\_\_\_\_

## II. Home Treatment Plans given by M.D.

A.

Clinic Appointment(s) and date(s): \_\_\_\_\_  
\_\_\_\_\_

## III. Instructions and Teaching by Investigator

A. Specific to injuries:

1. Laceration
2. Minor burns
3. Orthopedic injuries
4. Mild closed head injury
5. Any combination of these

B. Questions asked by the patient:

IV. Follow-up Data

A. Kept clinic appointment:  Yes  No  N/A

Date letter sent if appointment not kept \_\_\_\_\_

Response and reason \_\_\_\_\_

\_\_\_\_\_

B. Return visits to the Emergency Room  Yes  No

Reason (if yes)

C. Condition of injury/injuries in relation to expected healing:

V. Summary and Final Evaluation:

Did you feel that your instructions were adequate?

Date \_\_\_\_\_

My name is Carol Goodykoontz and I am the nurse you spoke with in the Emergency Room before you left on \_\_\_\_\_ at which time you agreed to participate in a research study concerned with Emergency Room follow-up.

In order to obtain the necessary information to complete this study, it is important to obtain the reasons why participants did not return to the clinic. The results of this study will hopefully provide us with the information that can help us improve our follow-up of Emergency Room patients.

It will be appreciated if you will please respond to the questions below, and return this in the self-addressed, stamped envelope which is enclosed. Simply place a check mark beside the answer for your reason in not returning to the clinic.

Thank you for your cooperation.

I did not return to the clinic for my appointment because:

- 1. I forgot.
- 2. I did not want to come.
- 3. I did not think it was important.
- 4. I did not have transportation.

- 5. No money for bus or taxi.
- 6. I lost my appointment slip and forgot the date.
- 7. It is too long to wait in that clinic.
- 8. I came to the Emergency Room instead.
- 9. If yes to No. 8, reason why \_\_\_\_\_
- 10. Other reason \_\_\_\_\_

Thank you.

Carol Goodykoontz, R.N.  
T.W.U. Graduate Nursing Student

APPENDIX C

DALLAS COUNTY HOSPITAL DISTRICT  
EMERGENCY SUITE FOLLOW UP  
PATIENT CARE INSTRUCTION SHEET

BURNS

HOME CARE OF THE PATIENT WITH A BURN

A. Cleanliness:

1. Wash the burned area as directed by the doctor.
2. Use burn cream as prescribed by the doctor.
3. Dress the burn with clean, dry dressings as directed by the doctor after each cleansing.
4. Protect the dressing from getting wet or damaged.

B. Exercise:

1. Elevate the burned area for 24 hours after the burn occurs.
2. Keep the burned area elevated as much as possible until the area heals.
3. Exercise the burned area to prevent stiffness.

NOTIFY YOUR DOCTOR IF:

1. The burned area appears infected or if the skin around the burn becomes red.
2. The burned area swells, is numb, or tingles.
3. Your temperature goes higher than 101°.

IT IS MOST IMPORTANT THAT YOU FOLLOW YOUR DOCTOR'S ORDERS, TAKE MEDICATIONS AS PRESCRIBED, AND KEEP YOUR CLINIC APPOINTMENT.

Should you develop any problems before your next clinic appointment, please consult your doctor or come to the Emergency Room.

DALLAS COUNTY HOSPITAL DISTRICT  
EMERGENCY SUITE FOLLOW UP  
PATIENT CARE INSTRUCTION SHEET

ADVICE ABOUT YOUR CAST

1. Your cast is important for healing of your broken bone or injured tissues.
2. The cast takes three days to dry thoroughly (do not cover your cast until it has dried). During this time, do not rest it on hard surfaces or sharp edges, for it will dent the cast.
3. Keep the cast elevated continuously for the first three days.
4. WATCH FOR THESE DANGER SIGNALS:
  - a. Blue or white color of your fingers or toes
  - b. Cold feeling in your fingers or toes
  - c. Numbness or tingling of your fingers or toes
  - d. Swelling of your fingers or toes
  - e. Pain or tightness in your cast

IF THEY OCCUR, REPORT IMMEDIATELY TO YOUR DOCTOR IN THE EMERGENCY ROOM.

5. Please report to the Emergency Room doctor for a routine cast check on \_\_\_\_\_ at \_\_\_\_\_ a.m./p.m.

WHEN YOUR CAST IS DRY

1. Keep it dry. If your cast becomes wet, soft, or broken, notify your doctor so that he can repair it.
2. Do not put things in the cast--for any reason. It is dangerous.

Do not hesitate to return to the Emergency Room if you have any problem with your cast.

DALLAS COUNTY HOSPITAL DISTRICT  
EMERGENCY SERVICES DEPARTMENT  
FOLLOW UP PATIENT CARE INSTRUCTION SHEET

HEAD INJURIES

You have had a head injury, which is not severe enough to require hospitalization, and the following treatment and statements apply to you:

1. Limited activity for 24 hours.
  - a. No school for children.
  - b. No work for adults.Your doctor may ask for limited activity for more than 24 hours.
2. Clear, cold liquids for 8 hours (no milk) - followed by reduced amounts of food for the next 24 hours may be taken.
3. Take only aspirin for headache or discomfort. Consult your doctor before taking any other medicines you have at home.
4. Be sure someone (family or friend) stays with you. They should be sure that you stay alert. They should check your breathing and pupils every 2 hours for 12 hours, then every 4 hours for the next 12 hours.
5. In a small number of cases, signs of serious injury may appear later, so keep your clinic appointment.
6. If any of the following things happen, you should consult your doctor immediately or return to the Emergency Room:
  - a. Nausea and/or vomiting.
  - b. Unusual sleepiness or difficulty awakening. (Someone should be sure that the patient stays alert. Wake the patient up from sleep every 2 to 3 hours during the period of sleep or during the first night.)
  - c. One pupil much larger or different from the other; peculiar movements of the eyes, or difficulty on focusing (blurred vision).
  - d. Weakness, paralysis, or numbness of arms or legs, peculiar gait, stumbling.
  - e. Mental confusion or disorientation. (Excessive drowsiness, inattentiveness, incoherent thought, change in personality, inability to concentrate, stupor.)
  - f. Irregular or labored breathing.
  - g. Persistent dizziness.

NOTE: The interpretation of your X-ray, as given to you by the physician in the Emergency Room, is only a preliminary report. The X-ray Specialist reviews these films. If there is a change in the diagnosis, you and your doctor will be notified within 24 hours. Sometimes fractures or abnormalities may not show up on X-rays for several days; if symptoms persist or get worse, more X-rays may have to be taken. If symptoms persist or worsen, call your doctor or return immediately to the Emergency Room.

APRIL, 1974

DALLAS COUNTY HOSPITAL DISTRICT  
EMERGENCY SERVICES DEPARTMENT

SUTURES = STITCHES

1. Definition: A temporary fiber used to sew parts of the living body together.
2. What makes suture necessary?
  - a. To close the skin and underlying tissue
  - b. To keep internal tissue clean
  - c. To protect from infection
  - d. To make the cut heal faster
3. How long do they last? Generally, they are not intended to stay in for more than 5-10 days. It depends on the location of the cut, how deep it is, and when the doctor feels the wound should be healed. The doctor will give you an appointment to have yours removed.
4. What to expect: The following may occur; they should be temporary.
  - a. Itching - Okay, it means it is healing.
  - b. Dull aching for a few hours after suture.
  - c. Occasionally a "throbbing" sensation for a few hours after suture.
5. What to look for: INFECTION - Serious Infection Can Be Dangerous!
  - a. Redness around the wound
  - b. Pus
  - c. Extreme pain or tenderness
  - d. Progressive red streak ---  
If this occurs, SEE a  
DOCTOR IMMEDIATELY.
6. What to do:
  - a. Watch for signs of infection (#5)
  - b. Keep the wound and dressing clean and dry. Should it get wet or dirty, clean the wound and change the dressing.
  - c. Ice will help the pain and throbbing for the first twenty-four (24) hours.
  - d. Heat may help the pain and throbbing after the wound starts to heal, but should not be used in the first twenty-four (24) hours.
  - e. Keep your clinic appointment.
    - 1) To have the wound checked for proper healing.
    - 2) To have the sutures removed. If they stay in too long, the stitches can cause infection.
7. When to come back:

If the problem gets worse, or you need to see a doctor, there are two ways to see a doctor at Parkland:

OUTPATIENT CLINIC - Hours 8:00 to 4:30, Monday through Friday. Telephone 638-1800 and ask for the clinic you have been attending. Unless it is an emergency, your problem should be taken care of in the clinic. This assures you of proper follow-up care.

EMERGENCY ROOM - Open 24 hours a day. You should only come to the Emergency Room for emergencies. It is designed for one time treatment of acute problems. Follow-up care can best be provided in the clinics.

APPENDIX D

## QUESTIONS ASKED BY PATIENTS

<u>Question</u>	<u>Times Asked</u>
1. How do I change my dressing?	7
2. How do I get to the clinic?	5
3. Actions of various medications?	4
4. Explain the injury again.	3
5. How many stitches did I get?	4
6. Is it necessary to keep the appointment?	2
7. Will the pain get easier?	2
8. Explain the signs of head injury.	2
9. When is the appointment?	2
10. What is hydrogen peroxide?	1
11. Where do I get supplies?	1
12. When do I go back to work?	1
13. Can I drink beer or milk?	1
14. What do I do if pain does not get better?	1
15. What did my X ray show?	1
16. Can I take the dressing off?	1
17. Why am I dizzy?	1

REFERENCES CITED

## REFERENCES CITED

- American Journal of Nursing. 1972. Conference nurse.  
12:1396-97.
- Avery, C. 1972. Reducing emergency visits of asthmatics:  
An experiment in patient education. Pittsburgh:  
Testimony, President's Committee on Health Educa-  
tion.
- Beaudry, L. 1971. Effective discharge planning matches  
patient need and community resources. Hospital  
Progress. June:29-30.
- Belsky, M.; Renner, J.; and Schnert, K. 1974. Making  
your patient a partner in care. Patient Care.  
108:108-24.
- Bille, D. A. 1977. The role of body image in patient  
compliance and education. Heart and Lung. 6:143-  
48.
- Brook, R. H., and Stevenson, R. L. 1970. Effectiveness  
of patient care in an emergency room. The New  
England Journal of Medicine. 283:904-7.
- Brook, R. H.; Morris, H. B.; and Schechter, B. A. 1973.  
Effectiveness of non-emergency care via an Emer-  
gency room. Annals of Internal Medicine. 78:333-  
39.
- Brown, L. 1977. The emergency department nurse at the  
bedside--a case for crisis follow-up. RN.  
January:49-55.
- Caplan, R. D.; Robinson, E. A.; French, J. P.; Caldwell,  
J. R.; and Shinn, M. B. 1976. Adhering to medical  
regimes. The University of Michigan
- Chapman, A., and Harvey, A. 1976. Making sure the patient  
understands--discharge planning in the emergency  
department. Journal of Emergency Nursing.  
March-April:33-36.

- Charney, E.; Bynum, R.; Eldredge, D.; Frank, E.; MacWhinney, J.; McNabb, N.; Scheiner, A.; Sumpter, E.; and Iker, H. 1967. How well do patients take oral penicillin? A collaborative study in private practice. Pediatrics. 40:188-195.
- College of Medicine and Dentistry New Jersey (CMDNJ). 1972. Office of Consumer Health Education. A guide to the development of a hospital based consumer health educational program. Piscataway, N.J.
- Davis, M. S. 1966. Variations in patients' compliance with doctor's orders: Analysis of congruence between survey responses and results of empirical investigations. Journal of Medical Education. 41:1037-47.
- \_\_\_\_\_. 1967. Predicting non-compliant behavior. Journal of Health and Social Behavior. 8:265-71.
- \_\_\_\_\_. 1968. Variations in patient's compliance with doctor's advice: An empirical analysis of patterns of communication. American Journal of Public Health. 58:274-84.
- Davis, M. S., and Eichorn, R. L. 1963. Compliance with medical regime: A panel study. Journal of Health and Human Behavior. 4:240-49.
- Dixon, W.; Strodling, P.; and Wootton, I. 1957. Out-patient PAS therapy. Lancet. 2:273-872.
- Donabedian, A., and Rosenfeld, L. S. 1964. Follow-up study of chronically ill patients discharged from the hospital. Journal of Chronic Disability. 17:847-62.
- Feinstein, A. R.; Wood, H. F.; Epstein, J. A.; Taranta, A.; Simpson, R.; and Tursky, E. 1959. Controlled study of three methods against streptococcal infection in a population of rheumatic children. New England Journal of Medicine. 260:697-702.
- Fletcher, S.; Appel, F. A.; and Bourgois, M. 1974. Improving emergency room patient follow-up in a metropolitan teaching hospital. New England Journal of Medicine. 291:385-88.

- Francis, V.; Korsch, B. M.; and Morris, M. J. 1969. Gaps in doctor patient communication. The New England Journal of Medicine. 280:535-40.
- Fyelling, C. P., and Etzwiler, D. 1976. Health education. Hospitals, JAHA. 50:52-56.
- Gordis, L.; Markowitz, M.; and Lillienfield, A. M. 1969. Studies in the epidemiology and preventability of rheumatic fever. A quantitative determination of compliance in children on oral penicillin prophylaxis. Pediatrics. 43:173-82.
- Harper, D. A. 1971. Take my word--patient follow-up of medical advise: A literature review. Journal of the Kansas Medical Society. June:265-71.
- Haynes, R. 1976. A critical review of the determinants of compliance. Compliance with Therapeutic Regimes. Baltimore: John Hopkins University Press.
- Hecht, A. B. 1974. Improving medication compliance by teaching outpatients. Nursing Forum. 13:113-29.
- Hoffman, P. B., and Rockart, J. F. Implications of the no show rate for scheduling outpatient department appointments. Hospital Progress. 50:35-40.
- Hulka, B. S.; Cassel, J. C.; Kupper, L.; and Burdette, J. A. 1976. Communications, compliance and concordance between physicians and patients with prescribed medications. American Journal of Public Health. 66:847-53.
- Isler, C. 1975. Helping hospital patients out. RN. November:43-44.
- Issac, S., and Michael, W. 1971. Handbook in research and evaluation. San Diego: EdITS Publishers.
- Jowers, L. V. 1975. Medicolegal aspects of diabetes. Journal of Legal Medicine. 5:25-28.
- Komaroff, A. 1976. The practitioner and the compliant patient. The American Journal of Public Health. 66:833-35.

- Krosnick, A. 1976. Failure to educate patients may lead to charge of physician negligence. Diabetes Outlook. 9:42-45.
- Lee, A. 1977. A fond farewell to patients shouldn't mean goodbye. RN. June:33-36.
- Ley, P., and Spellman, M. S. 1965. Communication in an outpatient setting. British Journal of Sociology and Clinical Psychology. 4:115-16.
- MacDonald, Mary E. 1963. Social factors in relation to participation in follow-up care of rheumatic fever. Journal of Pediatrics. 62(April):503-13.
- Marstons, M. V. 1970. Compliance with therapeutic regimes, a review of the literature. Nursing Research. 19:312-21.
- Miller, L., and Goldstein, J. 1972. More efficient care of diabetics in a county hospital setting. New England Journal of Medicine. 286:1388-91.
- Miller, M. 1978. Patient teaching in the emergency department. Journal of Emergency Nursing. January-February:21-23.
- Morgan, D. M. 1974. Public relations and patient's rights. Dimensions of Health Services. 51(November):30.
- Morrow, R., and Rabin, D. 1966. Reliability in self-medication with Isonazid. Clinical Research. 14:362.
- Parsons, T. 1951. The social system. Glenco, Ill.: The Free Press.
- Peoples-Veiga, C. 1976. Get into hypertension to improve patient compliance. Nursing 76. 4:32-35.
- Pender, N. 1974. Patient identification of health information received during hospitalization. Nursing Research. 23(May-June):263-67.
- Pohl, M. L. 1965. Teaching activities of the nurse practitioner. Nursing Research. 14:4-11.

- Pratt, L.; Seligmann, A.; and Reader, G. 1957. Physicians' views on the level of medical information among patients. American Journal of Public Health. 47(October):1277-83.
- Redman, B. K. 1975. Guidelines of quality patient care in patient education. Canadian Nurse. February:19-21.
- \_\_\_\_\_. 1976. The process of patient teaching in nursing. St. Louis: C. V. Mosby Co.
- Robinson, L. 1974. Patient's information base--a key to good care. Canadian Nurse. December:34-36.
- Rosenberg, S. G. 1976. Patient education--an educator's view. Compliance with Therapeutic Regimes. Baltimore: Johns Hopkins University Press.
- Rosenstack, J. M. 1975. Patient's compliance with health regimes. Journal of the American Medical Association. 234:402-3.
- Roth, H. P.; Caron, H. S.; and Bartholomew, D. 1971. Estimating a patient's cooperation with his regimen. American Journal of Medical Sciences. 262:269-73.
- Sackett, D., and Haynes, R. B. 1976. Compliance with therapeutic regimes. Baltimore: John Hopkins Press.
- Schroeder, S. A. 1973. Lowering broken appointment rates at a medical clinic. Medical Care. 11:75-78.
- Simonds, S. 1974. Current issues in patient education. New York: Core Communications in Health, Inc.
- Smith, R. M. 1968. Better patient care through electronics. Management Services. May-June:52.
- Somers, A. R. 1976. Consumer health education--to know or to die. Hospitals JAHA. 50:52-56.
- Vincent, P. 1971. Factors influencing patient non-compliance--a theoretical approach. Nursing Research. 20:509-15.
- Webb, M. L. 1969. The emergency medical care systems in a metropolitan area. Dr.P.h. Thesis, Johns Hopkins University School of Hygiene and Public Health.

- Weber, C. E., and Sather, M. 1976. Discharge medication counseling. Hospital Topics. November-December: 31-42.
- Weintraub, M. 1975. Promoting patient compliance. New York State Journal of Medicine. October:2263-66.
- Wilcox, D., and Hare, E. 1965. Do psychiatry outpatients take their drugs? British Medical Journal. 2:790-92.
- Willis, F. N., and Dunsmore, N. M. 1967. Work orientation, health attitudes and compliance with therapeutic advice. Nursing Research. 16:22-25.