AN EVALUATION ON THE DEGREE OF UNDERSTANDING BY HOSPITALIZED PATIENTS OF COMMON HOSPITAL TERMS

by

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CHAPTER I

INTRODUCTION

Introduction to the Problem

Experience in a multi-lingual, multi-cultural agency makes one aware of special problems, such as language and social differences. These differences result in a frequent need for explanation and clarification.

Knowledge and understanding is essential to the performance of any skill, and indispensable in communication between people, such as between nurse and patient. It is too easy for misunderstanding to occur on the part of the patient or the nurse, both in a multi-lingual, multi- cultural agency.

The solution to a communication problem, according to Brunner, must be based on the analysis of the particular situation in which the problem occurs (Brunner, 1977). This study explored (1) verbal communication by the nurse and (2) the adult patients' understanding of common hospital terms used by the nurse.

Most of the literature reviewed discusses communication problems in general. Often a message is not expressed clearly and the words received may also be misinterpreted. The majority of the literature review relates to nurse-patient communication but not specifically to the problem

of the adult patients' understanding of common hospital terms. Due to the lack of literature on this subject, this study attempts to determine the patients' understanding of common hospital terms.

In the hospital setting many phrases are used, which are commonplace to health practioners but may be totally unfamiliar to patients. Because understanding is crucial to carrying out a request, it seems critical that some information be gathered relative to patients' familiarity with general hospital terminology. Although everyone seems aware of the importance of communication, it is not known how misleading hospital terminology is for patients.

After reading an article by Cosper (1977), "How Well Do Patients Understand Hospital Jargon", the researcher performed an informal study at a Northwest Pacific Hospital. Results of this pilot project indicated a need to conduct a formal study to evaluate the level of patients' understanding of common hospital terms. This study focused on evaluating the degree of understanding by hospitalized patients of common hospital terms used by nursing personnel either in communication with patients or in communication among themselves within the patients' hearing.

Review of the Literature

In order to provide a general overview of communica-

tion, review of the literature focused on six major areas: paradigm of the communication process, methods of communicating, psycho-social and cultural differences affecting communication, sexual differences in understanding common hospital terms, nurse-patient relationship, and analysis of hospital jargon. Although the review takes into consideration psycho-social and cultural differences, they were not directly studied in this research.

More specifically, the review covers factors influencing patient ability to learn such as: level of education and number of admissions to the hospital.

Model of Communication Process

The theoretical base of the present research is Berlo's model (1960) of communication which is intended as an introduction to the process of communication rather than as a review of what is known about communication. The key word is "process" as defined in Websters: "a continuing development involving many changes" (1966). Berlo states the concept of process as "being an activity or event", and the relationships as being "dynamic, ongoing", ever-changing, continuous. Process does not have a beginning, and end, a fixed sequence of events; it is not static, at rest; it is moving (1960). The ingredients within a process interact; each affects all of the others.

The ingredients in communication include: (1) a communication source, (2) an encoder, (3) a message, (4) a channel, (5) a decoder, and (6) the communication receiver. These are the ingredients discussing the model of the communication process.

All human communication has some source, and idea, intention, information, and a need for the purpose of communicating. Given a source, a second ingredient becomes necessary. This is a message, which expresses the source by translating ideas, purposes, and intentions into a code, a systematic set of symbols.

An encoder is required as a third communication ingredient for the source's purpose to get translated into a code, a language. The encoder's responsibility is to take the idea of the sources and put them in a code expressing the source's purpose in the form of a message. The encoder's function can be performed vocally, graphically or through body expression and gestures.

The fourth ingredient is the channel, a medium or a carrier of messages. For communication to be effective, the choice of channels is an important factor.

Up to this point, a communication source, an encoder, and a channel have been discussed. If the discussion on the ingredients of communication cease here, no communication has taken place. For communication to occur, there must be somebody at the other end of the channel. When

one speaks, somebody must listen; when one writes, somebody must read. The person or persons at the other end can be called the communication receiver, the target of communication.

Communication sources and receivers must be via similar systems. If they are not similar, communication cannot occur. Going one step further, one can say that the source and the receiver may be (and often are) the same person. In psychological terms, the source intends to produce a stimulus. The receiver responds to that stimulus if communication occurs; if the receiver does not respond, communication has not occurred.

All the basic communication ingredients have been presented except one. Just as a source needs an encoder to translate his purpose into a message, to express purpose in a code, the receiver needs a decoder to translate, to decode the message and put it into a form that the receiver can use. In person-to-person communication the encoder is the method of communication of the source. By the same token, the decoder is the set of sensory skills of the receiver in one-or two-person communication situations.

With the concept of process established in our minds, one can profit from an analysis of the ingredients of communication, the elements that seem necessary for communication to occur. Elements such as who is communicating,

why there is communication, and the person with whom one is communicating. The style of communication was discussed and how people treat their messages. The means of communication were examined, the channels that people use to get their messages to their listeners, their readers. In short, a list of elements in the communication process were taken in account when (a) people initiate communication, (b) people respond to communication, or (c) people serve as communication observers or analysts.

The concern with communication has produced many attempts to develop models of the process - descriptions, listing of ingredients (Shannon & Weaver, 1949; Fearing, 1953; Schramm, 1954; Westley & MacLean, 1957; Brunner, 1977; and Reitz, 1977). None can be said to be "right", or "true". Some may be more useful than others, some may correspond more than others to the current state of knowledge about communication. Berlo's (1960) model of communication process is similar to other communication paradigms and was chosen because it is useful for talking about communication in many different communication situations.

Methods of Communication

Nonverbal components of communication were acknowledged, but this review discusses only the verbal side of

communication and sources of error in communication. Since there are many ways in which we communicate (body language, writing, touch, etc.) both verbal and nonverbal, essential communication has to be clear and simple (Carlo & Nierenberg, 1973). Communication must be tailored by the sender to meet recipient needs. When analysis of verbal and nonverbal feedback indicates lack of complete understanding, then rephrasing the discussion around the topic is in order.

Communication is a two-way process concerned with conveying a message or an idea between two or more individuals. Communication also involves active listening, understanding, feedback, the manner in which the message is received and sent as well as the amount distributed and retained (Dunn & Mutzebach, 1976). One person is the sender and one is the receiver of the message, with constant role reversal.

In day-to-day conversations with different individuals, one becomes impressed with the individualized way in which each person expresses his thought, feelings, and ideas to others. Communication then, is highly individual, and this individuality is even more apparent when a person becomes ill. One can note that what a patient expresses, and how the patient expresses a problem, need, or feeling, may vary markedly from one patient to another, according to the degree of the patients' illness and other environ-

mental variables surrounding the patient (Kraus, 1976). Ideas and thoughts can be communicated more rapidly and effectively in an atmosphere of mutual trust, acceptance, and repect versus an atmosphere of power, prestige, and authority (Wienenbach & Fall, 1978).

One researcher lists five categories of verbal errors in communication which frequently are committed by nurses and which inadvertently block communication between nurses and patients (Hewitt, 1964); they are:

1. changing the subject.
2. stating one's own opinions and ideas about the patient and his situation, thereby impeding exploration of the problem.
3. false or inappropriate reassurance which prevents the patient from expressing anxiety.
4. jumping to conclusions or offering solutions to the problem which interfere with further investigations of the subject.
5. inappropriate use of medical facts or nursing knowledge before determining how the patient thinks or feels about the subject.

These errors may be committed because of the nurse's own anxiety, attitude toward the patient, or because of preconceived notions of how patients should behave.

Marie Johnson (1976) illustrates that in communication between patients and health service professionals, three

gaps are discernible. These are the success, content, and direction of communication. The criteria for success usually goes beyond assessing whether communication has been achieved, and examine whether the communication has been successful in reaching some further target. An example would be the Ley and Spelman (1965) studies in which the criterion is the amount of information the patient can remember from a set which the doctor is known to have given.

The second gap, content, is the most readily examined. Communications are those in which the message is (a) a statement of fact and (b) intentionally delivered. As a result, there is little information about the communication of thoughts, feelings, opinions, etc., or measures which are delivered incidentally, in parallel to the main content of the communication. It has been found that the expression of positive affect is associated with greater satisfaction and compliance in the patients.

This leads to the final gap to be considered which concerns the direction of the communication. In most studies, the sender is the physician and the receiver the patient. Apart from some work on the failure of the patient to consult his physician, there has been little research on transmission of messages from the patient to the health-care professional. It seems self-evident that these are also important and the dearth of such studies is probably

due to the difficulty of controlling or assessing what message the patient is sending.

In summary, for any communication to occur, there must be a sender and a receiver and a message passing between the two. The process may fail at various points: for instance, the sender may not send the message or may send it in a way that is unintelligible to the receiver; the receiver may fail to input the message or may interpret the message wrongly; the message may be interrupted or distorted in its passage from sender to receiver (Phillips, et al. 1961).

Meyers' (1964) study explored the effects of three different conditions of communication on the impact and resulting cognitive structuring of an unfamiliar and moderately stressful situation. Her method included the development of an unexpected stimulus that would in turn produce a mild degree of stress. The study was designed to begin a thinking process based on a potential threat. This moderately stressful, unfamiliar stimulus was presented to three different groups, each with approximately the same age and sex distribution. Each group was given one of the three different conditions of communication. These three conditions were (1) a "structuring" communication designed to explain the situation to the patient; (2) a "no" communication situation in which the patient was told nothing of what was going to happen to him; and (3) an

"irrelevant" communication design to distract or to direct attention from the designed procedure.

She concluded that the changes in the thought process of patients subjected to a mild degree of stress was that it is easier to expand in the instruction to "explain to the patient," because for tension to be reduced or minimized, patients need to have the means to think about and understand the events which happen to them. Implications for the nurse are clear: discomfort is relieved as tension is reduced.

To tell the patient exactly what is going to happen to him (by structuring the communication) is most desirable. It decreases tension and can make the patient more comfortable during stressful events throughout hospitalization and/or illness. The structured communication approach is related to the fact that the patient is no longer depersonalized, being treated in a routine way. Rather, the patient is being treated as a person of intelligence whose cooperation is being sought by the nurse.

Psycho-social and Cultural Differences Affecting Communication

No source communicates without being influenced by his/her position in a social-cultural system. What is to be taken into account are the personal factors in the source: his/her communication skills, his/her attitudes,

his/her knowledge. There is a need to know the cultural context in which an individual communicates; that is the cultural beliefs and values that are dominant, and the forms of behavior that are acceptable or not acceptable, required or not required in the cultural system. There is also the need to know about an individual's expectations and the expectations others have about the person.

People in differing social classes and from different cultural backgrounds communicate differently (Berlo, 1960). Social and cultural systems partly determine the word choices people make, the meanings they attach to certain words, their choice of receivers, and the channels they use for this or that kind of message.

It is clear that effective communication requires a thorough awareness of the racial, cultural, and social factors that make people what they are and affect how they behave (Mitchell, 1976). Primeaux (1977) indicates that American Indians as a whole show some common cultural beliefs and values but that each tribe has a unique language and set of customs different from every other tribe. In dealing with the American Indian for example, establishing closer working relationships with native health practioners would promote understanding that health and illness have a different meaning to people of different cultures.

Mitchell (1978) clearly points out that language is a factor that often creates the problems encountered by

nurses and patients from different socioeconomic classes. Other factors that create problems may be different behavioral expectations and codes of conduct. These differences often frustrate both nurse and patient, and block a meaningful interaction between them.

Bigham (1964) described first as a Black, then as a nurse, and finally as occasional patient, some of the subtleties in Black-White communications, particularly in relation to nursing. Her belief is that oftentimes the Black patient lacks the vocabulary to comprehend the nurses' explanation. Another inhibitor to communication exists when the patient, accustomed to doing things for himself may not seek nursing aid, feeling that he would be "a bother". Common language does not insure understanding, it is but a single step in the difficult journey to understanding one another.

In a culturally pluralistic society verbal communication has great impact. The research done by Brockway, Lowe, and Plummer (1976) proved the above with the use of the Psychological Stress Evaluator (PSE), that ethnocultural differences in subjects' response to superficial reassurance merit further investigation. The protocol for superficial (R1) type of reassurance was as follows: no attempt was made by the nurse to restore the subject's confidence to find out more information from the subject,

or to explore reasons for concern, nor to assist subjects to reevaluate any threat(s) in order to find new ways of dealing with it (them).

Elizabeth Barnes' book, People in Hospitals, (1961) was based on the findings of an international study group investigating the psychological problems patients experience in general hospitals. Barnes found that the first overriding problem in hospitals is communication and all study groups agreed. She stated further that the greatest cause of disturbance to the patients' peace of mind is failure of communication at all levels, as Berlo (1960) also stated.

Interviews with Alaskan Natives (Eskimo, Indian, or Aleut) have revealed a major problem. In serving their medical needs, the health professional ignores their cultural and psychological needs (Cline, 1973). Lack of an awareness of these differences causes communication problems leading to frustrations for both nurses and physicians. Noncompliance with medical, dietary, or activity regimens is often due to lack of understanding of language or intent rather than rejection of prescription. An awareness of language and social differences is a first step in meeting these psycho-social needs.

Sexual Differences in Understanding Common Hospital Terms

One might expect that the female has a greater understanding of common hospital terms since American society perceives the female as the principal broker or arranger of health services for their children and spouses (Lewis, 1977). Lewis also documents the extent to which utilization of services is dependent upon the female's perception and demonstrates the association between maternal and child health beliefs. He further states that rates of use of almost all types of health-care services is increased for females for several reasons. Females are more often hospitalized in short-term facilities than males and they have more operative procedures performed on them. Women make 1.5 times more visits to physicians. More prescriptions are written for women and more women are residents of nursing homes.

In addition, Larson's , Samona's & Saunder's (1965) study indicates that females responded better on fifty medical terms than males by 634 points (males 1,487 and females 2,121 in category D considered adequate).

Nurse-Patient Relationship

A survey of the literature in recent years indicates an increasing awareness of the needs for competency in inter-personal relations if the nurse is to meet demands in the role of nursing. Communication is a part of all those activities involving directing, motivating, and leading in nursing.

Nobel (1979) studied patterns of staff communication within the working environment. In Hospital A, 1,245 communications were recorded, in Hospital C, there were 635. Specifically, four areas of communication were examined:

1. Communication among staff related to patient care and treatment.
2. Communication among staff related to personal affairs.
3. Communication from staff directed to patients.
4. Communication from staff directed toward visitors.

Results indicated that communication frequently consisted of short, unconnected sentences, commands, or exclamations. Communication was often shouted, coupled with medical jargon, or words said as staff members quickly moved about.

Communication relating to patient care and treatment in Hospital A was 57% and 30% in Hospital C lasting less

than one minute; 45% in Hopsital A and 19% in Hospital C was loud in intensity.

Staff often talked to each other about their personal affairs, especially during slack work periods. This type of communication accounted for 18% of the total communication in Hospital A and 16% in Hospital C. Face-to-face and telephone communication took place away from the privacy of the nurse's station and within the patients' hearing range. In Hospital A, 15% of personal conversation took place at the bedside, and 22% elsewhere.

In Hospital A, approximately 14% of all observed communications were directed toward patients; of these 55% were loud and the remainder were medium or soft. Similarly, in Hospital C, roughly 14% of all observed communications were directed toward patients; of these 43% were loud and the remainder, medium or soft.

Patient conferences most often took place at some distance apart from the patient being discussed but near some other patients. It takes little imagination to project the possibilities resulting from such communication.

In addition to communication disturbances of an auditory nature, the staff themselves represented a source of possible visual disturbance. The sheer number of personnel milling about was distressing. At the same time, there appeared to be no uniform codes; it was difficult

to distinguish between nurses and other staff members.

In summary, findings from this study suggest staff communication can be disturbing stimuli. While there were some instances of "good" communication, they were more than offset by the "bad" ones.

Healthworkers must acknowledge the patients' right to information and encourage them to use this right. This means abandoning the old stance of the doctor as "father", the nurse as "mother", and the patient as "child" and looking at the patient as a peer (Bayer, et al. 1977).

The registered nurse should become acquainted with the patient upon admission by listening, observing, and talking with, rather than to the patient. One major goal is to unite separate, and sometimes differing, points of view about health care for the sake of the patient and his family, who are often bewildered by the complexities of hospital culture and environment. The objective is to develop two-way communication, a beginning for real understanding (Brockway et al. 1976).

Flair (1978) suggested some "do's" and "don't's" for getting the most out of patient questions, which can become a natural entree into better patient education and rapport. The majority of the literature reviewed placed listening as first priority in interviewing. Further suggestions for effective nurse/patient relationship

included: assuring the patient that his/her question is legitimate, giving all the information the patient needs, using every question as opportunity to educate the patient, remembering the answer to various patient questions that have been most helpful, asking the patient if he/she has any other questions and actively encouraging the patient to speak out. All of these suggestions are important, though not necessarily in the order stated.

Analysis of Hospital Jargon

Nurses in particular must be sensitive to the language of the listener and to any possible semantic problems or lack of understanding and the interpretation of messages. Some messages are distorted bacause "buzz words", slang, or jargon are used.

One major semantic problem in hospitals is the use of abbreviations (Larson, et al. 1965). Almost every disease, treatment, surgical procedure, and medication seems to have an abbreviation. The nurse must also be careful with the use of medical or nursing jargon when communicating with patients.

In an analysis of hospital jargon, Cosper (1977) conducted a pilot study to evaluate the degree of comprehension by hospitalized patients of common hospital terms used by nursing personnel either in communication with

patients or in communication among themselves within patient's hearing. Results of the study indicated considerable lack of understanding of commonly used hospital words. By using a clue statement containing a key word there was great understanding in relation to hospital terms. Example: key term--Emesis basin; clue statement--"If you feel sick to your stomach you might need an emesis basin". Instead of, "If you are not feeling well ask for an emesis basin".

Cosper (1977) selected 13 key terms and 34 respondents in the original pilot study conducted from three units of a general hospital. She controlled for previous or first hospitalization and level of education and required the respondents to be over 16 years of age, alert, oriented, and with no obvious communication barriers.

The respondent's understanding of the terms was categorized as Grade I, II, or III. Grade I indicated that the patient defined the key term correctly either by a gesture or using a synonym; Grade II referred to patients who revealed understanding only after hearing the clue statement; and Grade III to patients who did not know the meaning of the term even after hearing the clue statement.

On analysis of the data, Cosper found that 85% of the 34 respondents demonstrated Grade I understanding for three of the 13 terms. Over 50% of the respondents had Grade I understanding for 53.8% or seven of the 13 terms.

The lowest Grade I understanding was 9%, in relation to the abbreviation NPO.

The respondents demonstrated the least understanding in relation to the terms NPO, ambulate, emesis basin, force fluids, and void. The percentages of respondents at Grade III for these terms was respectively 85%, 62%, 41%, 18%, and 15%.

Thirty-eight percent of the responses from six patients hospitalized for the first time revealed a Grade I understanding of the 13 terms. Of 28 previously hospitalized patients, 57% revealed Grade I understanding of all the terms.

Seventy-nine percent of the responses from patients with more than 12 years of education fell into Grade I understanding, compared with 57% of those with 8 to 12 years of schooling, and 32% of those having below eight years of education.

After being hospitalized twice herself, Cosper (1977) launched an informal follow-up study. She tested the five terms least understood from the first survey: NPO, ambulate, emesis basin, force fluids, and void. The selection of eleven respondents was again done by randomization and the control of an accounted-for variable, previous or first admission. Results of the study revealed that NPO was the least understood of the five terms followed by ambulate, emesis basin, void, and force fluids.

This researcher also conducted an informal pilot study in a Pacific Northwest University Hospital with Cosper's (1977) study modified in the following manner: accounted-for variables were excluded, ten respondents were selected, and a data collection tool and questionnaire were developed to test for this research and to also assess the need for a larger survey.

Analysis of the data was broken down with the respondents (N=10) understanding per Grade and per Key term (5). Fifty percent of the respondents had a Grade I understanding of emesis basin, 60% for force fluids, 40% for ambulate and the abbreviated term, NPO, and 70% for the word void. Thirty-two percent of the respondents demonstrated Grade II understanding of emesis basin, 40% for both force fluids and NPO, 60% for ambulate, and 30% for void. Twenty percent of the respondents demonstrated understanding for both emesis basin and NPO under Grade III. Understanding of key terms was as follows: Grade I, 5 patients (52%), Grade II, 4 patients (40%), and Grade III, 1 patient (8%). Since this was a limited study no broad generalizations were made from it, but the findings suggested that a larger survey was indicated. It also seemed safe to comment that patients still frequently did not understand what was said to them in the hospital.

Data from this pilot study was video taped for the use of unit and/or hospital in-service in hopes that the

data would have significance for nurses in their communication with hospitalized patients.

This researcher believed that data from this study would indicate a need for corrective action directed toward improving communication skills in the studied hospital and in all other agencies when nurse-patient interactions take place.

Summary of the Literature

Communication requires a thorough awareness of the racial, cultural, and social factors that make people what they are and affect how they behave. There is the need to comprehend and recognize physical, emotional, social, and intellectual assaults to the patient. There are indications that a peer relationship between the nurse and patient is needed if they are to communicate effectively.

Less tension is created when the patient is given specific information upon which he can structure the impending event of stress. It is essential to keep in mind that the way an individual has learned to cope with stress from past experiences will influence to a large extent the way the person handles the stress. The individual may be overly fearful or denying as a result of his personality. Attention to individualized needs for

proper communication is important.

Failure in the communication of content and the direction of communication illustrates poor communication between patients and health service professionals. Attention to the basics of good communication will correct these gaps. The nurse's awareness that verbal error, language, and hospital jargon inadvertently block communication between the nurse and the patient will be a first step in removing these blocks.

Implications are that nurses must find ways to interpret and explain what is going on to conscious patients, and perhaps even to patients who cannot fully hear or understand. Cline (1973) as well as Bullough and Bullough (1972) mention the use of interpreters. At the same time, nurses must become more aware of their personal conversations and the possible effects these might have on patients. Finally, nurses must search ways of influencing other staff members to watch what they say and how they say it.

Statement of the Problem

It is understood that the broad role of nursing is that of aiding patients and their families to meet their biological, psychological, and social needs. This is especially true of the patient who finds himself in the

strange new culture of the hospital.

Review of the literature indicates that the nurse's intent in communication is twofold. The first is therapeutic and the second is to establish trusting relationships that will enhance the effectiveness of the procedures the nurse may be carrying out.

There is a disturbing tendency, when communication problems arise, for individuals to look outside of themselves for the cause rather than to concern themselves with what they might do to help create the necessary understanding. The object of nursing care, of which communication is a great part, is to provide a milieu that will promote rather than impede recovery. This study then, evaluates the degree of understanding by hospitalized patients of common hospital terms used by nursing personnel either in communication with patients or in communication among themselves with the patients' hearing.

Hypotheses

1. Females will have a greater understanding of common hospital terms than males.
2. Patients with education above the grade school level will indicate higher scores of understanding of common hospital terms than those patients with below the grade school education.

3. Patients with successive admissions will indicate increased understanding of common hospital terms than those on the first admission.

Operational Definitions

For the purpose of this study the researcher accepted the patient's definition of the key term as correct if a synonym was used or a gesture made revealing knowledge of the term's meaning and/or the following operational definitions of each common hospital term:

Emesis basin. A container to vomit and/or spit in, "kidney basin".

Force fluids. Take in a lot of liquids or plain water.

NPO (Nullus per os). Nothing by mouth, cannot eat or drink anything.

Ambulate. Able to walk, not confined to bed.

Void. To empty the bladder, go to the bathroom, pass water, or other "colloquialisms".

I.V. (Intravenous). Introduction of solution into the vein through a needle.

Injection. A shot, forcing fluid into a vessel or under the skin.

Temperature. Body heat above normal; degree of hotness or coldness; fever.

Constipated. Experiencing infrequent defecation of bowel movement.

Abdomen. That portion of the trunk located between the chest and the pelvis; stomach.

Urine specimen. The fluid or liquid stored in the bladder and voided into a container to be saved for examination.

I & O (Intake and output). All measurable fluid taken in and all measurable fluid put out.

Patients' comprehension. Grade I, patient defined the key term correctly, used a synonym or made a gesture revealing knowledge of the term's meaning. Grade II, patient showed understanding in any way after hearing the clue statement. Grade III, patient did not know the meaning of the term after hearing the clue ststement.

CHAPTER II

METHODOLOGY

Description of the Study

This is a replication study (Cosper, 1977) that is exploratory and hypotheses testing in nature. The purpose of the study is to evaluate the degree of understanding of hospitalized patients of common hospital terms used by nursing personnel either in communication with patients or in communication among themselves within the patients' hearing.

Setting of the Study

The setting for this study was a 425 bed (plus 25 bassinets) Pacific Northwest State Hospital. The study hospital is affiliated with a school of dentistry, medicine, and allied health, and nursing. The North wing of the hospital has a bed capacity of 118, and the South wing of the hospital has a bed capacity of 307 plus 25 bassinets. The surgical and medical clinical services were surveyed. The physician staff is composed of staff doctors as well as rotating residents, interns and medical students. Nursing service employees number 718.4. A breakdown of

these positions are: 27 head nurses, 25 assistant head nurses, 411 staff nurses, 89.6 licensed practical nurses, 68.2 hospital aides, 58.6 clerical specialists, 4 clinical specialists, 5 assistant directors of nursing, 1 associate director of nursing, 1 director of nursing, and 7.4 coordinators. The hospital has separate surgical, medical, and cardiac care areas.

Other care areas are designated according to speciality:

Vascular, Plastic Surgery

Gynocology and Obstetric

Psychiatric Crisis Unit

Eye, Ear, Nose and Throat

Kidney Transplant, Nephrology

Neonatal Intensive Care Unit

Medicine-Immunology, Rheumatology, Allergy

Orthopedic-Family Practise

Neurosurgery and Neurology

Psychiatry

Obstetrics-Post Partum, Nursery, Labor and Delivery

Pediatrics 1-6 years of age

Pediatrics 0-1 years of age

Pediatrics 6-16 years of age

Subjects and Sample

Forty-two subjects were selected by a random drawing from those meeting the following criteria:

1. Within the age range of 18-65 years of age.
2. Spoke and understood English.
3. Had no sensory impairment.
4. Were alert and oriented to time, place, and person.
5. Were assigned to general and not to special duty care during the period of interviews.

The sample consisted of fifty percent of the population of the medical and surgical units selected. The two groups represented a population equal to fifty percent of the total average census of the four units.

The general surgery and urology unit had an average daily census of twenty-eight, therefore, fourteen interviews were made on that unit. The oncology-cardiopulmonary surgery unit had an average daily census of sixteen, so eight interviews were made on that unit. The medical and medical oncology unit and general medicine and cardiology unit both had a daily census of twenty, so ten interviews from both units were done. The forty-two interviews were made by this researcher over a two-day period.

Data Collection Instrument

A matrix form developed by this researcher categorized the respondents' level of understanding of the terms on a horizontal axis, with the key terms on a vertical axis. A questionnaire developed by this researcher and containing the twelve key terms, was used (See Appendix B). If the subject was unable to define the key term, a clue statement was read to the subject and the question repeated. If after the clue statement the subject indicated no understanding of the key term, it was then an indication of a Grade III understanding. The information obtained from the respondents was kept confidential and anonymity was maintained by the use of code numbers.

Data Collection Procedure

Permission was requested from Hospital Administration and the Nursing Service Department. Orientation to this study was presented to head nurses and assistant head nurses of each unit by use of a memo describing succinctly the purpose of the study, the process of data collection, procedures of the sutdy, and the dates for the actual study.

The procedure for this study was that each subject was interviewed by this researcher during the interviewing

period. Prior to the interview, the interviewer assessed criteria two, three, and four by review of the subjects' records and the general information form.

Analysis of Data

The data were analyzed using a two-way analysis of variance (ANOVA) because they met the assumptions. That is, the samples were randomly drawn from normal distributions and the variances of groups were equal. The .05 level of probability was accepted as the minimum level for significance for each category of the patient's level of understanding of common hospital terms.

Combined response of the medical and surgical units, per grade and the weight sum of Grades I and II were analyzed.

CHAPTER III

RESULTS AND DISCUSSION

This chapter will present the analysis of data generated by interviewing forty-two subjects on their understanding of common hospital terms. There were three hypotheses tested by this study:

1. Females will have a greater understanding of common hospital terms than males.
2. Patients with education above the grade school level will indicate higher scores of understanding of common hospital terms than those patients with below the grade school education.
3. Patients with successive admissions will indicate increased understanding of common hospital terms than those on the first admission.

The general surgery and urology unit had a total census of twenty-eight, and fourteen interviews were done on that unit. The oncology-cardiopulmonary surgery unit had a total census of sixteen, and eight interviews were done on that unit. Both the medical oncology-general medicine and medical cardiology-dermatology units had a total census of twenty, and ten interviews were done on each unit.

Patients were selected for interviews after meeting

the following five criteria:

1. Were within the age range of 18 to 65 years.
2. Spoke and understood English.
3. Had no sensory impairments.
4. Were alert and oriented to time, place, and person.
5. Were assigned to general and not to special duty care during the period of interviews.

The final sample consisted of 42 patients or 50 percent of the total population from each medical and surgical units.

Characteristics of Sample

There was an equal distribution of female and male subjects with an age range from 18 to 65 years. Three subjects reported not completing high school, 18 reported completing high school and 21 had attended college or technical training beyond high school. Five subjects reported first admission to a hospital, 20 reported two to six admissions to any hospital, and 17 reported six or more admissions to any hospital. (See table 1).

Table 1

Description of Sample

Character		n	%
Sex	Males	21	50.0
	Females	21	50.0
Age	18-27	4	9.5
	28-37	10	23.8
	38-47	9	21.4
	48-57	4	9.5
	58-65	15	35.7
Educational level	1-8	3	7.1
	9-12	18	42.8
	12-18	21	50.0
Number of Admissions	1	5	11.9
	2-6	20	47.6
	6 or more	17	40.4

Categories of the patient's understanding of common hospital terms were coded as follows: Grade I, patient defined the key correctly either by a gesture or using a synonym revealing knowledge of the term's meaning; Grade II, patient showed understanding in any way after hearing the clue statement; and Grade III, patient did not know the meaning of the term even after hearing the clue statement. These were scored 2, 1, and 0 respectively, therefore the possible range was 0 to 24.

For the purpose of this study this researcher accepted the patinet's definition of the key term's meaning as mentioned above and/or the following operational definitions for each common hospital term:

Emesis basin. A container to vomit, and/or spit in, "kidney basin".

Force fluids. Take in a lot of liquids or plain water.

NPO (Nullus per os). Nothing by mouth, cannot eat or drink anything.

Ambulate. Able to walk with assistance or alone, not confined to bed.

Void. To empty the bladder, go to the bathroom, pass water, or other "colloquialisms".

I.V. (Intravenous). Introduction of solution into the vein through a needle.

Injection. A shot, forcing fluid into a vessel or under the skin.

Temperature. Body heat above normal; degree of hotness or coldness; fever.

Constipated. Experiencing infrequent defecation of bowel movement.

Abdomen. That portion of the trunk located between the chest and the pelvis; stomach.

Urine specimen. The fluid or liquid stored in the bladder and voided into a container to be saved for examination.

I & O (Intake and Output). All measurable fluid taken in and all measurable fluid put out.

In the order presented above, each operational definition is given an item number from 1 to 12, for identification purposes.

Data Analysis

The Analysis of Variance (ANOVA) was done using the MANOVA program in the SPSS package. Cochran's Homogeneity of Variance test was done to verify the assumption of equal cell variances. The initial analysis of variance included the following variables: sex, number of admissions, and educational level. Because there were missing cells, it was not possible to do an analysis of the interaction effect, sex by admission by education, i.e., a three-way ANOVA was not done.

The first hypothesis stated that females will have a greater understanding of common hospital terms than males. Females scored 0.8 points greater than males. Deleting sex as a variable, it was possible to include the education and admission effect in the analysis. The analysis of variance education by admission utilizing an F value of .33244 was computed. Therefore, the first hypothesis was not accepted.

The second hypothesis stated that patients with education above the grade school level will indicate higher scores on understanding of common hospital terms than those patients with grade school education or below.

One can assume that the higher the educational level achieved the greater one's ability to better communicate for clarification, thereby gaining a greater understanding and awareness in the manner of expressing thoughts, feelings, and ideas to others.

There was a statistically significant difference within the cells of education alone; therefore, the second hypothesis is accepted. (See table 2).

The third hypothesis stated that patients with successive admissions will indicate increased understanding of common hospital terms than will those on the first admission.

With successive admissions an individual is frequently exposed to hospital terminology. In turn, the patient is

better able to assist in his nursing care and by this means builds up an effective trusting relationship between himself and the nurse.

Successive admissions was significant at the .05 level; therefore, the third hypothesis is accepted. However, education by admission interaction effect was not significant due to missing cells. (See table 2).

Table 2

Summary of Analysis of Variance*

Source of Variance	s.s.	df	M.S.	F	p
Within Cells	205.030	34	6.03032	-	-
Education	34.380	2	17.19048	2.85067	.07169
Admission	41.430	2	20.71538	3.43520	.04377**
Education by Admission	21.443	3	7.14768	1.18529	.32987

*Units Combined
**Significant at .05 level

Item Mean Analysis

Item mean analysis, (see table 3(indicated that 92% or 39 of the respondents, demonstrated Grade I understanding for eight of the twelve hospital terms. Grade I,

patient defined the key term correctly either by a gesture or using a synonym revealing knowledge of the term's meaning. The eight hospital terms were: force fluids, (73.8), void (52.3), I.V. (80.9), injection (1.0), temperature (97.6), constipated (95.2), abdomen (85.7), and urine specimen (83.3). Over 37% of the respondents had Grade I understanding for four of the 12 terms--emesis basin (38.0), NPO (40.4), ambulate (45.2), and I & O (30.9).

In Cosper's (1977) study the lowest Grade I understanding was 9% in relation to the abbreviation NPO.

For Grade II, patients revealed understanding only after hearing the clue statement, 17 patients gave an item mean of 40.4 to the hospital term NPO; 19 patients, 45.2 to the term ambulate and 23 patients, 54.7 to the hospital term I & O.

The respondents demonstrated the least understanding in relation to the hospital terms--emesis basin, NPO, void, and I & O in the Grade III category. Grade III, patient did not know the meaning of the term even after hearing the clue statement. The item mean of respondents at Grade III for these hospital terms was respectively 23.8, 19.0, 19.0, and 14.2.

Cosper's (1977) study revealed emesis basin at 41%, NPO at 85%, and void at 15%. In addition, ambulate at 62% and force fluids at 38%.

Table 3

Combined Item Response-Medical/Surgical Units

Item	Grade I		Grade II		Grade III	
	n	%	n	%	n	%
Emesis basin	16	38.0	16	38.0	10	23.8
Force fluids	31	73.8	11	26.1	-	-
NPO	17	40.4	17	40.4	8	19.0
Ambulate	19	45.2	19	45.2	4	9.5
Void	22	52.3	12	28.5	8	19.0
I.V.	34	80.9	5	11.9	3	7.1
Injection	42	100.0	-	-	-	-
Temperature	41	97.6	1	2.3	-	-
Constipated	40	95.2	2	4.7	-	-
Abdomen	36	85.7	6	14.2	-	-
Urine specimen	35	83.3	6	14.2	1	2.3
I and O	13	30.9	23	54.7	6	14.2

Eighty-five percent of the responses from patients with more than 12 years of education fell into Grade I understanding, compared with 44% of those with 9 to 12 years of schooling, and 5% of those having below nine years of education.

Comparing Cosper's findings to the above, 79% with more than 12 years of education fell into Grade I understanding, 57% of those with 8 to 12 years, and 32% of those having below eight years of education. (1977).

Ninety percent of the responses from patients with six or more admissions fell into Grade I understanding of common hospital terms. One respondent hospitalized for the first time to any hospital had a Grade I understanding of all the terms and completed more than 12 years of education.

Comparing hospitalization for the first time, Cosper found 38% of the responses from six patients revealed a Grade I understanding of 13 terms. Of 28 previously hospitalized patients, 57% revealed Grade I understanding of all the terms, (1977).

Another way of looking at the patients' level of understanding of common hospital terms is to compare the composite score to each hospital term from least understood to most understood of Grades I and II combined.

To come up with a composite score for each hospital term and the number of patients' understanding of that

term, Grades I and II were statistically weighted. That is, for item number one, 16 patients responded under Grade I code number 2 (16 x 2 =32) plus 16 patients responded under Grade II (32 + 16 =48).

As can be seen in Table 4 the following hospital terms were least understood: emesis basin (48), the abbreviated terms NPO (51) and I & O (49), void (51), and ambulate (57).

From the pilot study done in June, 1979, 50% of the respondents had a Grade I understanding of emesis basin, 60% for force fluids, 40% for ambulate and the abbreviated term NPO, and 70% for the word void. Thirty-two percent of the respondents demonstrated no understanding for both emesis basin and NPO under Grade III. The grand total per Grade understanding of key term respectively was: Grade I (52%), Grade II (40%), and Grade III (8%). Comparing the pilot study grand total per Grade understanding to this research, the findings were: Grade I (69%), Grade II (23%), and Grade III (8%).

Table 4

Weighted Sum of Scores/Grades I and II-Medical/Surgical Units

Least Understood to Most Understood

Item	Composite Score
Emesis basin	48
I and O	49
NPO	51
Void	51
Ambulate	57
Temperature	60
Abdomen	67
Constipated	71
Force fluids	73
I.V.	73
Urine specimen	76
Injection	85

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was done to evaluate the patients' understanding of commonly used hospital terminology in this Pacific Northwest Hospital. The purpose was to benefit both nurses and patients on the use and understanding of hospital terms during the patients' stay in a hospital. Authorized by the Director of Nursing Service Department and with the cooperation of the staff of both medical and surgical units, this survey provided an increasing awareness on the process of communication.

The general information form and a questionnaire form, including a clue statement to each hospital term, were used to measure the patients' understanding of hospital terminology. Subjects were selected by random process, with an equal number from the medical and surgical units on the day shift during two interviewing days.

Three hypotheses were made prior to this study: the first hypothesis that females will have a greater understanding of common hospital terms than males, was not accepted. The second hypothesis that patients with education above the grade school level will indicate higher

scores of understanding of common hospital terms than those patients with below the grade school education, was accepted. The third hypothesis that patients with successive admismions will indicate increased understanding of common hospital terms than those on the first admission, was accepted.

Conclusions

The conclusion from this study was that successive admissions to a hospital and higher educational achievement level enhances an individaul's understanding of hospital terminology.

Through such means as in-service education and team and ward conferences, hospital personnel should be taught (1) to use simple language when speaking to a patient; (2) when it is necessary to use a hospital term, explain it clearly to the patient; (3) key the explanation to the intellectual and educational level of the patient; (4) remember that a patient who is in the hospital for the first time will need more explanation than one who has been there before; (5) elicit feedback to determine whether or not the patient has understood.

Two suggestions to accomplish the above are: (1) that hospital policy include the provision of a booklet for each patient on admission; (2) that hospital personnel

be familiar with the definitions included in the booklet to ensure uniform and accurate verbal explanations to the patient. Written in simple, friendly style, a booklet would offer some explanation of the hospital to the patient. A special section would list commonly used words, phrases, and abbreviations, giving their meaning in lay terms.

Recommendations

1. An experimental design be developed to compare the anxiety of a control group receiving no special instruction on the meaning of common hospital terms with that of patients who receive such a booklet as the one described and compare with number of admissions.
2. Replicate the study in the same setting or a different geographic area with the inclusion of the following variables: a larger sample size, occupation, ethnic origin, age, and sensory impairments.

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APPENDICES

APPENDIX A

GENERAL INFORMATION FORM

APPENDIX A

GENERAL INFORMATION FORM

Name_____ Age_____

Code#_____ Sex___M___F___
(Circle one)

Date_____

Education: Circle highest grade completed

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Admission: Circle number of admissions to a hospital

1 2 to 6 more than 6

APPENDIX B

QUESTIONNAIRE AND CLUE STATEMENTS

APPENDIX B

QUESTIONNAIRE AND CLUE STATEMENTS

	Key Term Questions	Clue Statement
1.	"If you asked the nurse for your emesis basin, what would she give you?"	"If you feel sick to your stomach you might need an emesis basin."
2.	"The nurse tells you to force fluids, what does she mean?"	"It is important to force fluids even though you may not feel thirsty to keep up your body fluid balance."
3.	"What does the nurse mean when she tells you that you will be NPO in the morning?"	"There are some tests that will require you not to have anything to eat or drink, therefore, a NPO record will be a part of your chart."
4.	If you were told, "we'll be back at 3 o'clock to ambulate you," what would you expect to happen?	"To keep your leg muscles from getting stiff you may want to ambulate down the hall."
5.	"If you were asked do you have the sensation to void?" you understand the word to mean?	"If you drink a lot of water you usually have the sensation to void."
6.	"What does the nurse mean when she states that she is going to start an I.V. in your arm?"	"The physician wrote an order to start an I.V. in the arm in case there is a need to give fluids or medication through the vein."
7.	If the nurse approaches you with a syringe and needle and says that, "you have to have an injection," what would you expect her to do?	"Since you are experiencing some pain I will prepare an injection to releive your pain."

APPENDIX B

QUESTIONNAIRE AND CLUE STATEMENTS

Key Term Questions	Clue Statement
8. What does the nurse mean when she says, "It is time to take your temperature."	"Since you are feeling unusually warm I would like to take your temperature."
9. If the nurse comments, "the type of test you had might make you constipated," what does she mean?	"If you take in plenty of liquids and a glass of prune juice for today you may not be constipated."
10. If the nurse asks, "how does your abdomen feel," to what part of your body would she be referring to?	"If you massage your stomach for a little while the area of your abdomen may feel better."
11. "If the nurse asks you to give a urine specimen," you understand her to mean?	"The physician wrote out an order for a urine specimen for examination."
12. The nurse enters your room and tells you, "all of your I & O must be recorded," you understand her to mean?	"It is important to measure all fluids you take in and all fluids you put out, therefore, an I & O sheet will be a part of your record."

APPENDIX C

MATRIX FORM AND GRADE LEVELS OF UNDERSTANDING

APPENDIX C

MATRIX FORM AND GRADE LEVELS OF UNDERSTANDING

	Grade I %	Grade II %	Grade III %
Emesis basin	38.0	38.0	23.8
Force fluids	73.8	26.1	-
NPO	40.4	40.4	19.0
Ambulate	45.2	45.2	9.5
Void	52.3	28.2	19.0
I.V.	80.9	11.9	7.1
Injection	1.0	-	-
Temperature	97.6	2.3	-
Constipated	95.2	4.7	-
Abdomen	85.7	14.2	-
Urine specimen	83.3	14.2	02.3
I and O	30.9	54.7	14.2

APPENDIX D

CONSENT FORM

UNIVERSITY OF OREGON HEALTH SCIENCES CENTER

SCHOOL OF NURSING

CONSENT FORM FOR HUMAN RESEARCH

I,_____, herewith
(First Name) (Middle Initial) (Last Name)
agree to serve as a subject for study named "An Evaluation of the Degree of Understanding of Hospitalized Patients of Common Hospital Terms", by Susan Buterin, R.N., B.S.N., under the supervision of Marie Berger, R.N., M.S.

This study explores the patients understanding of common hospital terms used by nursing personnel either in communication with patients or in communication among themselves within the patients' hearing. My participation in this study necessitates that I complete a general information form (age, education, number of admissions, etc.) and requires that I answer questions about my understanding of words used by the nurses and this interview will be conducted at my bedside and take no longer than thirty minutes. I may benefit by increasing my understanding of terms used by nurses caring for me.

I understand that my participation in this study will involve no risk for me. The information obtained will be kept confidential. My name will not appear on any project records and anonymity will be maintained by the use of code numbers.

I understand that I have the right to refuse to participate in this study or to withdrawal at any time without jeopardizing my care. This study has been discussed with me and I have had the opportunity to ask questions.

> "It is not the policy of the Department of Health, Education and Welfare, or any other agency funding the research project in which you are participating, to compensate or provide medical treatment for human subjects in the event the research results in physical injury. The University of Oregon Health Sciences Center, as an agency of the State, is covered by the State Liability Fund, If you suffer any injury from the research project, compensation would be available to you only if you establish that the injury occured through the fault of the Center, its officers or employees. If you have further questions, please call Dr. Michael Baird, M.D., at (503) 225-8014."

I have read the foregoing and agree to participate in this study.

_____ _____
(Date) (Participant's Signature)/ (Witness' Signature)

APPENDIX E

ABSTRACT

AN ABSTRACT OF THE THESIS OF

Susan Buterin

For the MASTER OF NURSING

Date Receiving this Degree: June, 1980

Title: An Evaluation on the Degree of Understanding by Hospitalized Patients of Common Hospital Terms

Approved: [redacted]
Marie C. Berger, M.S. Thesis Advisor

The purpose of this study was to evaluate the patients' understanding of commonly used hospital terminology used by nursing personnel either in communication with patients or in communication among themselves within the patients' hearing. Berlo's (1960) Process of Communication provided the theoretical base.

This study was conducted on the medical and surgical units of a Pacific Northwest Hospital. Forty-two patients were interviewed by the use of a questionnaire. The selection was done randomly from a general information form (age, education, number of admissions, etc.) and after meeting the following criteria:

1. Were within the age range of 18 to 65 years.
2. Spoke and understood English.
3. Were alert and oriented to time, place, and

person.

4. Had no sensory impairments.
5. Were assigned to general and not special duty care during the period of interviews.

Analysis of variance (ANOVA) was used to test for differences between means since there were three or more groups. Cochran's Homogeneity of Variance test was done to verify the assumption of equal cell variance. The initial analysis of variance included the following variables: sex, number of admissions, and educational level. Because there were missing cells, it was not possible to do an analysis of the interaction effect, sex by admission by education.

The first hypothesis: Females will have a greater understanding of common hospital terms than males, was not accepted. The second hypothesis: Patients with education above the grade school level will indicate higher scores of understanding of common hospital terms than those patients below the grade school education, was accepted. The third hypothesis: Patients with successive admissions will indicate increased understanding of common hospital terms than those on the first admission, was accepted.

Analysis of the data revealed that five out of the 12 terms were least understood or a Grade III; emesis basin (48), the abbreviated terms NPO (51) and I & O (49),

void (51), and ambulate (57). The grand total per Grade understanding of key terms was: Grade I (69%), Grade II (23%), and Grade III (8%).