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Effect of nurse's attire on patients' perceptions of trustworthiness

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Effect of Nurse's Attire on Patients' Perceptions of Trustworthiness

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Abstract

This descriptive study was an investigation of the difference in patients' perceptions of trustworthiness in the nurse based on the nurse's attire. Eighty-nine men and women who presented to emergency departments in three West Michigan hospitals for treatment of non-acute illnesses or injuries completed a Trust Perception Questionnaire before being seen for treatment. Subjects were shown one of three photographs of the same nurse model in different nursing attire and were directed to choose statements concerning elements of trust that applied to the person in the photograph. Analysis of variance performed on data indicated a significant difference [$F(2, 86) = 28.75$, $p<.01$] in subjects' perceptions of trustworthiness based on the nurse's attire. Subjects perceived a higher level of trustworthiness when the nurse model was wearing a traditional white skirted uniform than when wearing a scrub suit or white pants and blue sweater. The majority of subjects, 87.6%, selected the model in the white uniform as most like the picture of the "ideal" nurse.

"For the apparel oft proclaims the man"

Shakespeare, Hamlet

To Warren, Kara and Kyle--my favorite people

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Chapter 1

Introduction

In recent years, the need for a better understanding of the part clothing plays in influencing behavior has become increasingly evident. The popularity of John Malloy's Dress for Success books and the growing appeal of color analysis have demonstrated to the public the many psychological and sociological implications of clothing choices. Clothing is often seen before the voice is heard or behavior is interpreted. From a social-psychological viewpoint, the way one person reacts toward another during a first encounter depends on the first person's definition of the situation and impression of the role and personality of the other. Clothes are a conspicuous aspect of a person's appearance. Clothes form an integral part of the social encounter and are an important clue to role position and may reflect personality traits of the wearer as well.

Clothing has long been a symbol of identification of those who care for the sick. Several hundred years ago, special orders of priests and monks ministered to the sick, and their robes became associated with the task. Early in the Christian era, certain orders of nuns, wearing white aprons to cover their habits, performed these duties. As modern medicine emerged, and the responsibility for caring for the sick shifted from religious to secular groups, the nursing profession developed. In time, with increasing independent identity, nurses made distinct modifications in the uniform. The white color, emphasizing purity of person and purpose and cleanliness, was adopted and became standard.

Problem Statement

Today, the uniform of the professional nurse is far from standard. Variations in dress have developed in many specialty areas, such as public health and industrial nursing. Even within an institution, uniforms are not consistent. Patients and families of patients have often expressed frustration and anger at the inability to identify specific roles among hospital personnel based on clothing. Members of the hospital staff dress in a way that does not accurately communicate their position to the patient. Appearances are not consistent with roles. Patients have asked the cleaning lady for a bedpan and the dietician for pain medication; family members think the "play lady" is adjusting the intravenous fluid flow rate and the nurse is emptying wastebaskets. This confusion is due in part to the increasing number of ancillary health care workers and in part to the lack of uniformity of dress among health care personnel. Professional nurses must assume responsibility for this situation. The laboratory coat and the stethescope have replaced the cap as a status symbol in the eyes of some nurses. Others, in an effort to assert individuality and fashion preference, are wearing many styles and colors of tops and sweaters. Although the look is "nice", the variation in apparel has led to confusion of identity of hospital personnel and frustration for many patients.

The problem is especially pertinent in the emergency department where nurse-patient interactions are often brief and the patient is expected to communicate intimate and confidential information to a

stranger. The presence of a professional nurse, easily identified as trustworthy, should facilitate the communication process. The wearing of a traditional white nurse's uniform may provide this identity.

The purpose of this study was to identify any difference in emergency patients' perceptions of trustworthiness in the nurse based on the nurse's attire.

Chapter 2

Review of Literature and Conceptual Framework

Review of Literature

Clothing has long been recognized as a medium of non-verbal communication and the major means by which one establishes identity in interpersonal communication. Traditionally, clothing has been a clue to the gender, status and occupation of the wearer. Gibbons and Schneider (1980) discussed ways in which clothes resemble language. What one wears is a matter of choice, so one is dealing in a system of signs and symbols that are deliberately sent. Gibbons and Schneider suggest that a clothing ensemble is made up of garments which are worn in combination much the same way a phrase is made up of a combination of words.

The message of clothing has been investigated by many researchers. A number of studies have demonstrated that clothing makes a difference in the behavior of other people. In a study by Keasey and Tomlinson-Keasey (1973), 446 adult male and female subjects were approached by a young man or woman in either traditional or "hippie" attire and asked to sign an anti-war petition. Subjects were selected at random from adults shopping in a large shopping mall. Both male and female stimuli variables obtained a significantly greater number of signatures when dressed in traditional clothing. Raymond and Unger (1972) conducted a study in which a young black male or a young white male in one of four different conditions of dress requested assistance from 1200 people leaving a supermarket in New York. Observations were

made by an observer who recorded data based on specified criteria. The data demonstrated a significant difference in cooperation with conventional and deviant dress. Both the black and white males received more cooperation when dressed in conventional attire. Clothing was also shown to make a difference in compliance when asking directions from strangers. Schiave, Sherlock and Wicklund (1974) conducted a study in which 120 middle aged females walking alone in downtown Boston were asked directions to a nearby restaurant. Stimuli figures were two college age females, one dressed in conventional and one dressed in non-conventional clothes. Observations were made and recorded by the same female requesting directions. Results indicated significantly more compliance with the person dressed in conventional clothing. These studies demonstrated the importance of dress as a cue in social interaction.

Other studies have attempted to measure the attributions made about strangers on the basis of the clothing they wear. Douty (1963) conducted an experimental study to observe the part clothing played in structuring perceptions of persons. Four stimuli figures, each in four different costumes, were rated by a random sample of 60 middle class women from various civic organizations. Control ratings in a standard costume were also made. Ratings were made using a semantic differential based on paired terms referring to personal characteristics and socio-economic status. Significant differences in rating of personal traits and social status were found to be associated with changes in clothing. Results of a correlational study were interpreted by Hamid

(1968) to suggest that stereotypes originate primarily from wearing apparel rather than facial characteristics. Forty five male and female college students were asked to rank eight stimuli pictures according to 10 concepts of physical and personal traits. The figures in the pictures were similar while clothing was systematically varied to represent a wide range of female dress. Five of the concepts tested were statistically significant for both male and female judges; three of the concepts were significant for male judges only.

A study was reported in 1983 (Harris, James, Chavez, Fuller, Kent, Massanari, Moore and Walsh, 1983) which combined the experimental methodology of manipulation of the researcher's style of dress and the questionnaire methodology of having subjects rate photographs of various dress styles. Results derived from data collected from 352 male and female subjects, ages 14 to 81 years, were somewhat contradictory. No significant differences in subjects' behavior toward the experimenter were found based on variations of dress. However, variations in dress were not as extreme in this study as compared to the above mentioned studies which suggested differential behavior. Findings were significant for demonstrating differences in perception of people based on dress style. A model was rated most happy, successful, feminine, interesting, attractive, intelligent and friendly when wearing a formal skirt and least so when wearing jeans. The authors concluded that clothing did communicate something about the wearer but influenced behavior toward the wearer "primarily in the absence of other information about her status" (Harris, et al., 1983, p. 88). These

studies viewed clothing choice as a function of personal characteristics of the individual.

Several researchers have taken into account the situation or the background of the viewer when examining the effects of clothing. A study by Hubble and Gelso (1978) demonstrated a significant relationship between a counselor's attire and the client's state of anxiety and willingness to self-disclose. Subjects were 50 female undergraduate students with admitted emotional problems. Stimuli figures were three male counselors whose attire was fixed at three levels; traditional, casual and highly casual. Subjects were interviewed by counselors and then asked to complete a test instrument immediately following the session. Findings suggested that subjects manifested the most desirable reactions to counselors who dressed in a way that was one step or level more formal than the subject's own dress level. Hubble and Gelso interpreted the result to imply that the greater formality connoted the appropriate level of expertness. Further, it was suggested that adverse effects of attire may delay the development of a "therapeutic alliance which would be especially problematic where contact is brief or time limited" (Hubble & Gelso, 1978, p. 584).

A study in Australia tested the prediction that social attributions made on the basis of clothing vary as a function of both the dress form and the particular social community of the viewer. Noesjirwan and Crawford (1982) observed the ratings of 160 male college and graduate students concerning photographs of an adult male dressed in one of four styles of dress. The students were grouped according to academic majors

of teaching, agriculture, business and social-psychology; the photographs were believed to portray typical dress worn by one of the sample groups. The rating scales were designed to measure subject's reaction to the stimulus photograph as to evaluation, potency and activity, similarity to self, and the extent to which the figure in the photograph was clothed in a normal, appropriate and polite way. The photographs were distributed randomly, with all four conditions presented to each sample group, but each student rated only one photograph condition. In addition, each subject was judged by a male faculty member on the extent to which he was dressed typically for his group. Noesjirwan and Crawford suggested two important findings from the data. First, different forms of dress elicited different responses, regardless of the viewer. Second, certain meanings were attached to specific dress forms, and there was general concensus across different samples as to what those meanings were. Also, over and above this concensus, sample groups responded differently to the same dress form. The authors suggested that clothing conveyed a variety of social meanings which the individual interpreted at a cultural, social and personal level. This perception determined the extent to which the observer accepted or rejected the dress and the meaning it held.

The most intentional use of clothing as a medium of non-verbal communication is in the wearing of uniforms. Although the literature that discusses clothing as a form of communication supports this statement, relatively little research has studied the effect of uniforms on the perception or behavior of observers. Harris, Ramsey, Sims and

Stevenson (1974) presented four pairs of photographs of unknown athletes, in and out of uniform, to 271 high school male students and 26 male high school teachers. Subjects rated the stimuli figures on several dimensions of personality traits and physical ability. The figure in uniform was rated more favorably along all dimensions although not all results were statistically significant. Data suggested that people in uniforms were perceived as better players of that role.

A study concerned with the effects of clothes in impression formation was conducted by Hamid (1969). Eight photographs of adolescents under four conditions of dress (school uniform, casual clothes, working clothes and dress clothes) were rated by 30 male and 30 female high school students on a scale adopted from Osgood's list (Osgood, Suci & Tannenbaum, 1957). Although the results demonstrated significant statistical variance with regard to the gender of the subject and the gender of the stimulus person in the photograph, variance was much lower under the dress condition of the uniform.

A few studies have examined the effect of nurses' attire on behavior of patients. These studies are primarily in the area of psychiatric nursing and findings are not consistent. One of the first studies in the area was by Goldberg (1961). During a 15 week study of 28 psychiatric patients, nurses wore uniforms for three weeks, then wore street clothes with "no mark of occupational identity" (Goldberg, 1961, p. 37) for nine weeks, then wore uniforms for three weeks. Patient behaviors were coded according to pretested criteria and observed and recorded by the stimuli nurses, physicians and aides on the unit.

Results demonstrated no changes in patients' behaviors as a result of the nurses' attire. A study by Sterling (1980) assessed the effects of nursing attire on social approaches of six male and six female late adolescent and young adult psychiatric patients over an eight week period. This small but well controlled study demonstrated an increase in the number of social approaches by patients to nurses in street clothes. Sterling, however, pointed out that the results reflected approaches of long-term patients and that new patients preferred nurses in uniform so identification of staff personnel was facilitated.

Two nurse researchers, Larson and Ellsworth (1962), conducted a quasi-experimental study which evaluated patients' and personnel perceptions of nurses in uniform and in street clothes. A semantic differential questionnaire was completed by 24 control and 30 experimental subjects before and after a three month period in which nurses wore street clothes instead of uniforms. The questions in the instrument were designed to determine if the nurse was perceived as a distant authority figure or an approachable friendly person. Findings demonstrated no changes in patients' perceptions of the nurse (Larson & Ellsworth, 1962).

The study by Larson and Ellsworth was the only study cited in which the sample included patients. All other studies were based on nurses' and other observers' ratings of patient behavior. There were no studies found which examined the perceptions of patients in acute care settings or identified ways in which these perceptions might affect patient behavior.

Conceptual Framework

The conceptual framework which explains why the nurse's attire may affect the patient's perception of trustworthiness is based on communication theory, role theory from a symbolic interactionist perspective, and the meaning of trust.

Communication theory is based on the word 'communicate'. This term has been defined by many people in many different ways, but the most concise and relevant definition is found in the American College Dictionary - "to make known" (1953, p. 224). Although this very simple definition is accurate, the process of communication is complicated. Shannon and Weaver (1982) present the components of communication in six stages.

1. Thinking - the origin and framing of the idea or message in the sender's mind.

2. Encoding - putting the thought into form for communicating. On many matters, one thinks in terms of language, but on other matters, experienced feelings are encoded in non-verbal signs and symbols. Encoding occurs along the three dimensions of physical touch, visible movements of parts of the body, and signs and symbols which stand for something.

3. Transmitting - sending the signal or message. This stage is accomplished by three methods: instrumental or goal directed and intentional; consummatory or spontaneous, emitted expression of a state of mind (joy, anger, fear); and incidental or unintentional.

4. Perceiving - the receiver must grasp the incoming communication with one or more senses.

5. Decoding - the receiver puts the incoming communication into some form that makes it understandable.

6. Understanding - the receiver comprehends the message.

Communication is the basis for all relationships and interactions. As indicated above, it occurs at different levels and along several dimensions often at the same time. While an individual may focus on a particular level or dimension (such as speech or message) for understanding, other signs and symbols which are not the main focus of attention may enter into perception and influence understanding and behavior. These signs and symbols include facial expressions, body movements, touch and appearance, which further includes physical attractiveness and clothing. These signs and symbols are forms of non-verbal communication. Non-verbal communication has been described by Benson and Frandsen (1976) as the persuasive use of visual imagery. Hubble and Gelso (1978) describe it as the exchange of information through nonlinguistic signs. Verbal and non-verbal communication are interconnected; one serves to support and complement or errode and contradict the other.

Mehrabian (1971) has suggested that 90% of all human communication is non-verbal. It is continually taking place in human interaction, assisting those interacting to define who is doing what and in what context. Non-verbal communication is used to establish social identity, give meaning to behavior and artifacts of daily life, and to influence peoples' attitudes and behavior (Leathers, 1976).

Regardless of the message encoded and transmitted by the sender, the perception of the receiver determines how the message is decoded and understood. Perception involves receiving and organizing information from the environment. This process is the basis for knowing about the world. It is intricately involved with other processes which begin with sensory stimulation. Sensory receptors translate stimulation into a code carried by the nervous system to the brain which acts upon the message in various ways. The brain may transmit impulses to the response system, such as muscles or glands, or it may first select, organize and modify input. Integration of impulses from various other sensory organs is frequently involved as is comparison with previous input. All of these functions, which change with experience, are labeled perception. It is interrelated with learning and thinking. Organization and response are based on past learning and labeling of events and newly processed information from the environment is a basis for further perception.

It is in this perceptual stage of communication that initial judgments are made, both positively and negatively. One does not observe the appearance and behavior of another passively, but rather one organizes observations into meaningful segments or categories. Once one has categorized another in a particular way or according to a specific role, additional characteristics are inferred for which there is often no evidence. Such inference stems from preexisting experience, knowledge and ideas or personality and stereotypes. Behaviors which are compatible with these patterns are attended to, and any gaps are completed with attributes which fit the image.

Perception is affected by a person's need, experience, motivation and fear. The receiver's interest in receiving any message is important for understanding. The patient seeking treatment for an illness or injury is looking for help. The person who communicates the role of nurse will be perceived as a nurse, and the knowledge, skills, and qualities identified with nurses will be attributed as well.

Role theory from a symbolic interaction perspective interprets role and role behavior by focusing on the meaning which symbols and acts have for the participants. The writings of social psychologists Osgood (1957) and Mead (1934) provided the groundwork for the development of the perspective. Several concepts are incorporated into the theory.

1. Interaction - a term that implies humans acting in relation to each other. It includes communicating (verbally and non-verbally), perceiving, interpreting and acting.

2. Symbol - a stimulus that has meaning for individuals and elicits a response based on the symbol's meaning. Symbols are used for representation and communication. Traffic lights, gestures, words and uniforms are examples. It is in people interacting that symbols are created, given meaning and changed. A symbol must be meaningful and significant both to the user and the individual with whom the user communicates. The person using the symbol does so for the purpose of giving meaning intended to make sense to another.

3. Role - a term that refers to both expected and actual behaviors associated with a position. To assume a role or to assign a role to another indicates understanding of the actions of the role.

Certain communicating behaviors are attached to roles in society, and roles are socially maintained through communication. Since roles generally demand certain qualities, individuals in roles are expected to maintain 'self' qualities associated with the role. How well a person executes a particular role may be determined by what is communicated. This communication is affected by expectations one holds of oneself and others.

People learn roles through symbolic communication as they see which behaviors evoke responses from others. Through this process, one person adjusts actions to the ongoing behavior of another. An individual's behavior is not caused by another but is the result of how one perceives and interprets the message communicated by another's behavior.

It is through learning processes that one comes to expect certain behaviors to be associated with certain roles. Physical appearance, including clothing, is probably the most important symbol of role information. The uniform of the policeman, the athlete and the nurse signals that the wearer has rights, duties, privileges, responsibilities and a level of competence. By wearing a uniform, one shows that the right to act freely has been forfeited and actions must be in accordance with and under the limitations of the role.

Role theory from a symbolic interaction perspective is utilized by two nurse theorists. King's Goal Attainment Model and Riehl's Interaction Model apply symbolic interaction in the nursing process. King's concept of role includes the elements of 1) a set of behaviors expected when occupying a certain position; 2) rules or procedures

which define the rights of a position; 3) a relationship with one or more individuals interacting in a specific situation for a purpose (King, 1981). Riehl's model for nursing defines role as a cluster of norms and values that guide and direct behavior. The concept of role requires individuals to communicate with one another and interact (Riehl, 1980).

Role behavior requires reciprocity. A person may give in an interaction at one time and receive at another. In the process of nursing, both the nurse and the patient must give and receive in the interaction to function in their roles. Because the perceptions and expectations of those who must interact in the health care system are so varied, the personal, positional and situational aspects of role taking are often complex. It becomes less complex when the authority and competence of the professional nurse is communicated clearly. When verbal and non-verbal communication are consistent with actions, the nurse is more likely to be trusted. When two people can accurately identify and willingly accept the role of the other, a reciprocal, beneficial interaction can be initiated.

Trust, the belief in the honesty and reliability of another (Webster Collegiate Dictionary, 1977), can enhance the effectiveness of any interaction and affect how satisfactory the interaction will be. Some degree of trust is essential if a relationship is to be maintained and grow.

One of the first researchers to study trust, Morton Deutsch, defined trust as the reliance on the communication behavior of another

person to achieve a desired but uncertain objective (Deutsch, 1960). The following summary is from Loomis' (Loomis, 1959) description of what happens when one trusts another. One predicts, expects or relies on a particular behavior from another. One takes a risk. The expected behavior can lead to positive or negative consequences. One is reasonably confident that the other's behavior will result in positive consequences. Loomis further describes trust by stating, "When we trust someone, we believe that person is really the way he or see appears to be" (Loomis, 1959, p. 305).

The development of trust in a relationship is facilitated by several factors. One factor is a belief in the knowledge of the other person about the subject or situation. Another element is a clear set of behaviors from which to judge. People whose actions are clear and unambiguous are trusted. Also, trust is based on one's history of interactions with others and an ability to detect untrustworthy behavior. In this area, non-verbal communication is given much credibility.

Trust between a patient and a nurse is considered fundamental for the full attainment of nursing goals (Thomas, 1978). It is unlikely that a patient who does not believe a nurse to be trustworthy will share true thoughts, feelings and other pertinent information. The nurse's ability to assess, give care, teach or counsel would be compromised.

Summary

Clothing and uniforms have been shown to affect another's perception of and behavior toward the wearer. Persons dressed in

uniforms are expected to behave in a way consistent with the meaning of the uniform. Goldberg writes that uniforms signal legitimate activity and structure behavior and standardize appearance (Goldberg, 1961). Goffman, in Presentation of Self, states:

> Uniforms label a person so garbed as a member of a particular group or occupation. Such institutional symbols act as both identifiers and identifiees. To be attired in such a way is to be a certain kind of person (Goffman, 1959, p. 136).

The presence or absence of perceived trustworthiness in the nurse may determine the patient's choice of behavior. If the patient perceives the nurse to be trustworthy, cooperation will more likely result. If trustworthiness is not perceived, the patient may not risk cooperation (Loomis, 1959).

Implications for Study

Uniforms communicate. In the emergency department of a hospital, the uniform of the nurse communicates to the patient the role of professional care giver. The professional nurse with special knowledge and skills and the patient with knowledge of self and personal problems meet as strangers in the hospital environment. They must interact to identify problems and establish goals. Because these interactions are often brief and little is known about the nurse by the patient, the patient's initial judgment of the nurse may be affected by the nurse's clothing. The nurse must assume some responsibility and communicate effectively in helping the patient perceive an image of trustworthiness.

Research Question

To test the general idea that clothing worn by a nurse does have a definite and measurable effect on the patient's perception of the

nurse's trustworthiness, the following research question was formulated:

> Is there a difference in the emergency patient's perception of trustworthiness in the nurse based on the nurse's attire?

Definition of Terms

Nurse is defined as a female registered nurse working in the emergency department.

Attire is defined as the outer, visible clothing worn by the nurse.

Patient is defined as an English speaking and reading adult who has presented to the emergency department for treatment of a non-acute illness or injury.

Perception is defined as the act of becoming aware of through the senses.

Trustworthiness is defined as being worthy of trust as measured by scores on the Trust Perception Questionnaire (See Appendix A).

Chapter 3

Methodology

Design

This study made use of a descriptive design employing a self disclosure questionnaire to determine if there was a difference in the emergency patient's perception of trustworthiness in the nurse based on the nurse's attire. The instrument was developed for this investigation.

Sites

The study was conducted in the emergency departments of three West Michigan hospitals. The first hospital is located in a residential area of a conservative community. Residents are of primarily Dutch heritage. This institution of 260 beds serves a population of approximately 50,000 people. Emergency personnel see more than 14,500 patients each year. The second hospital is one of three hospitals in a city of 40,000 people. The hospital is located in a mixed residential/industrial area. Consequently, a large number of patients have injuries related to industrial accidents. Over 18,000 patients are seen annually. The third hospital is located in a metropolitan area of 200,000+ people. This institution is located in a prosperous residential area, but emergency personnel treat many people who come from the inner city as well. This acute care facility records approximately 27,000 emergency visits each year.

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Subjects

One hundred and eleven patients over age 18 who were able to read and write the English language and complete the questionnaire without assistance who presented for treatment of a non-acute illness or injury were approached to participate in this study.

There were several reasons for selecting subjects who met these criteria. First, the instrument was written in English and designed to be self administered. Second, subjects were asked to participate before contact with nursing personnel. Delaying treatment for patients with life threatening illnesses or injuries would not have been appropriate. Third, patients with non-acute problems are most likely to be assessed initially by a nurse. The patient with an acute condition is often seen immediately by a physician. Fourth, most patients with non-acute illnesses or injuries are discharged home from the Emergency Department with instructions for self care. This is a group for whom the perception of trustworthiness in the nurse is important for compliance with discharge instructions. Fifth, many patients who seek treatment for minor problems in a hospital emergency department do not have a personal physician. They depend on the emergency department for primary care. The patient's perception of trustworthiness in the nurse will enhance the nurse's role of teacher.

Instrument

The self disclosure instrument used to measure trustworthiness was developed for this study after a search of the literature failed to reveal an appropriate tool. Three instruments were available to measure

trust; the Philosphies of Human Nature Scale (Wrightsman, 1969), the Interpersonal Trust Scale (Rotter, 1967), and the Trust Scale for Nurses (Wallston, 1979). The Philosophies of Human Nature Scale included trust as only one of several variables measured. Rotter's scale was designed to be used in groups of people who knew each other. The Trust Scale for Nurses was developed to determine nurses' beliefs about patients and other nurses. None of the aforementioned instruments was appropriate for this study. Therefore, a Trust Perception Questionnaire was developed to measure a patient's perception of trustworthiness in the nurse based on the nurse's attire.

The instrument was designed to be self administered because it was an efficient and economical method. A self report questionnaire also provided anonymity, prevented interviewer bias, and allowed direct feedback from the subject.

Directions preceded each of three sections. The first section was made up of 12 statements each of which reflected an element of trust. Seven statements were worded positively for the perception of trustworthiness; five statements were worded negatively for the perception of trustworthiness. Subjects indicated by means of a check (✓) mark which statements on the questionnaire they thought applied to the person in a photograph. The variation of positive and negative wording of the statements was done to avoid response bias in which a subject could score all items the same. The second section of the Trust Perception Questionnaire consisted of four questions concerning demographic data. Although brief, this section provided a contrast

between the first and third sections. The third section of the instrument directed the subject to select the one photograph of three that most closely resembled his/her picture of the ideal nurse.

Scoring was based on subjects' responses to the 12 statements in the first section. Statements considered positive for the perception of trustworthiness were scored one point; statements considered negative for the perception of trustworthiness were scored zero. The higher the score, the higher the perception of trustworthiness in the person in the photograph. The highest possible score was seven. Subjects were grouped for data analysis according to which picture was initially shown for response on the questionnaire.

The photographs to which the statements in section 1 and section 3 referred were of the same adult female model in three different styles of nursing attire. The stimulus figure in photograph A (see Figure 1) was wearing a traditional white skirted uniform with white stockings. Photograph B (see Figure 2) was of the nurse model wearing a surgical scrub suit. Photograph C (see Figure 3) was of the same figure wearing white pants and white blouse with a navy blue sweater. In all photographs, the model was wearing a name pin and school pin on the upper left front of the top, white shoes and the same hair style. Facial expression, body position and environmental background were the same in all three photographs.

Photographs were used to prevent other physical or personality traits of the stimulus figure from affecting the subjects' perceptions of the variable. A female model was selected because 98.1% of all

working registered nurses in the state are female (Statewide Health Coordinating Council, 1983, p. 87).

The construct validity of the Trust Perception Questionnaire was established by examining the writings of social psychologists identified in the conceptual framework and the three instruments now in existence that measure trust. The 12 statements in the first section of the instrument were developed by the author from these sources. The statements referred to the elements of trust identified by Loomis (1959) and Deutsch (1960), and the definition of trust given by Rotter (1967) and accepted by Wallston (1967).

Statements 1 and 2 referred to Loomis' statement, "When we trust, we believe that person is really the way he or she appears to be." Statements 3, 4, 6, 7, 9, 10, 11 and 12 reflected the summary of Loomis' description of trust, one predicts, expects or relies on a particular behavior from another. Deutsch explained this concept as the reliance on the communication behavior of another person to achieve a desired but uncertain outcome. Statements 5, 8 and 12 acknowledge that one takes a risk that expected behavior can lead to positive or negative consequences. Statements 7, 9 and 12 refer to Loomis' description concerning people who trust. These people are reasonably sure of positive consequences in the other's behavior. Statements 3 through 12 are also based on Rotter's definition of interpersonal trust; that the behavior of another individual can be relied upon (Rotter, 1967).

The instrument was pretested in a pilot study with 18 subjects (six from each of the three hospitals) who met criteria described. The pilot

study revealed unclear wording in the directions and in two statements in the first section. Revisions in these sentences were made to improve understanding.

Procedure

Institutional approval from all three sites was obtained. Each Emergency Department Director was contacted and the study explained. All emergency staff on duty during data collection were informed of the research activity.

All potential subjects were approached by the investigator immediately after their complaint was identified and initial information for the emergency record was obtained. At all hospitals, the registration person and the investigator determined which patients qualified as subjects. In order to prevent recent impressions from affecting responses, subjects were interviewed prior to contact with nursing personnel during their visit to the Emergency Department. The same introduction and explanation were given to all subjects by the investigator. Questions about the study were answered to the extent that the answers did not reveal the study variable.

The interview took place in the waiting room before the subject was taken into the emergency care area. This did not interfere with the emergency staff's clerical or clinical tasks, and treatment was not delayed in the eyes of the patient. All data collection was done by the investigator, wearing street clothes and an identifying name pin, between the hours of 11 a.m. and 11 p.m.

Each subject was asked if he or she was willing to participate in a study which was being done as a requirement for the completion of a Masters in Nursing program at Grand Valley State College. The verbatim explanation (See Appendix B) identified that the reason for the study was to learn more about patients' perceptions and opinions about nurses. If the patient indicated a willingness to participate, he or she was asked to sign a consent form (See Appendix C). Each subject was assured that anonymity and confidentiality would be maintained and that the results of the study would be available if he or she wished to see them. One female subject requested the results be sent to her.

After the consent form was signed, dated and witnessed, the subject was given the Trust Perception Questionnaire with one of the three photographs and instructed to follow the directions on the questionnaire. Further questions concerning the questionnaire or pictures were answered with the statement, "Answer based only on what you can tell by looking at the photograph." Pictures were regularly alternated so that every third subject was shown the same photograph initially.

When the subject had completed the first and second sections of the instrument, he or she was shown the remaining two photographs and instructed to look at all three pictures to complete the third section. Upon completion of the questionnaire, the subject was verbally thanked and a signal given to the registration person indicating that the interview was finished.

Coding was done by means of a colored dot glued to the lower right corner of each photograph. The consent form number, which was coded for each hospital, and the color of the dot on the first photograph shown to the subject were noted on the upper right corner of the questionnaire.

Chapter 4

Data Analysis

Introduction

Data collected for the investigation were interval data. Therefore, tests of significance, the one-way ANOVA, protected t, and t tests were performed by hand calculator to determine if a significant difference existed between the means. A Kuder Richardson 20 was used to compute the internal consistency of the Trust Perception Questionnaire instrument.

Characteristics of Subjects

A total of 111 patients were approached and requested to take part in the study. Ninety-one men and women agreed to participate; eighty-nine subjects completed the questionnaire. Two subjects' responses were eliminated because of subjects' failure to complete the instrument. Demographic data for subjects are shown in Table 1.

Subjects were grouped for data analysis according to which photograph was initially shown for response on the questionnaire. See Tables 2 - 4 for comparison of demographic data for each group.

The numbers of subjects in each of the three groups were not equal due to two factors. First, the number of subjects interviewed each day was not the same. Second, questionnaires from two subjects were not completed and therefore not used for data analysis.

Table 1

Demographic Data for Entire Sample

Demographic Characteristic	Number	Percentage
Gender		
Male	33	37.08
Female	56	62.92
Age Group		
18 - 30 years	38	42.70
31 - 45 years	24	26.97
46 - 60 years	15	16.85
61+ years	12	13.48
Educational level		
Did not graduate from high school	13	14.61
High school graduate	27	30.34
Vocational school graduate	5	5.62
Some college	26	29.21
College graduate	18	20.22
In emergency department before?		
Yes	74	83.15
No	15	16.85

N = 89

Table 2

Demographic Data for Subjects Initially Shown White Uniform

Demographic Characteristic	Number	Percentage
Gender		
Male	9	29.03
Female	22	70.97
Age Group		
18 - 30 years	14	45.16
31 - 45 years	7	22.58
46 - 60 years	4	12.90
61+ years	6	19.36
Educational level		
Did not graduate from high school	7	22.58
High school graduate	10	32.26
Vocational school graduate	3	9.68
Some college	6	19.35
College graduate	5	16.13
In emergency department before?		
Yes	25	80.65
No	6	19.35

N = 31

Table 3

Demographic Data for Subjects Initially Shown Scrub Suit

Demographic Characteristic	Number	Percentage
Gender		
Male	11	34.37
Female	21	65.63
Age Group		
18 - 30 years	10	31.25
31 - 45 years	11	34.38
46 - 60 years	8	25.00
61+ years	3	9.37
Educational level		
Did not graduate from high school	4	12.50
High school graduate	11	34.38
Vocational school graduate	1	3.12
Some college	8	25.00
College graduate	8	25.00
In emergency department before?		
Yes	28	87.50
No	4	12.50

N = 32

Table 4

Demographic Data for Subjects Initially Shown White Pants and White Blouse with Blue Sweater

Demographic Characteristics	Number	Percentage
Gender		
Male	13	50.00
Female	13	50.00
Age Group		
18 - 30 years	14	53.84
31 - 45 years	6	23.08
46 - 60 years	3	11.54
61+ years	3	11.54
Educational level		
Did not graduate from high school	2	7.69
High school graduate	6	23.08
Vocational school graduate	1	3.85
Some college	12	46.15
College graduate	5	19.23
In emergency department before?		
Yes	23	88.46
No	3	11.54

N = 26

Reliability of Instrument

The internal consistency of the Trust Perception Questionnaire was computed by means of the Kuder Richardson 20 formula (Welkowitz, Ewen, & Cohen, 1976). The reliability coeffecient was computed for each of the three groups (see Table 5).

Table 5

Kuder Richardson 20 Data for Scores of Groups Completing Trust Perception Questionnaire Based on Nurse's Attire

Attire	Range	Mean	Variance	r#
White uniform	4-12	10.3	11.41	.965
Scrub suit	1-11	6.3	17.45	.926
Pants/sweater	2-12	6.3	16.8	.926

Research Question Results

The research question investigated in this study was: Is there a difference in the emergency patient's perception of trustworthiness in the nurse based on the nurse's attire?

Data analysis indicated that there was a difference in patients' perceptions of trustworthiness in a nurse based on the nurse's attire. Scores on the first section of the Perception Questionnaire were subjected to one way ANOVA for unequal groups. Scores were tallied by hand and calculations performed with a calculator. The results

indicated a significant difference among the means of the three groups (see Table 6).

Table 6

One Way ANOVA for Scores of Three Groups Completing Trust Perception Questionnaire Based on Nurse's Attire

Source	df	SS	MS	F
Attire	2	237.48	111.74	28.75
Error	86	355.4	4.13	
Total	88	592.88		

α at .01 = 4.88.

A protected t (Welkowitz, Ewen, & Cohen, 1976) was calculated to determine a more specific comparison among the means of the three groups. No significant difference was found between the responses of the groups viewing the photograph of the nurse model wearing the scrub suit and the nurse model wearing the white pants and blue sweater. However, significant differences were found between the group responding to the photograph of the nurse model in the white uniform and the other two groups. The mean score of the group responding to the photograph of the model in the white uniform was higher than the mean scores of the other two groups (see Table 7). The nurse model wearing the white uniform elicited a higher level of trustworthiness than either of the other two models.

Table 7

Protected t Between Group Means Following Significant ANOVA for Scores on Trust Perception Questionnaire

Attire	t value	p
White uniform compared to scrub suit	3.86	.01
White uniform compared to pants with sweater	4.0	.01
Scrub suit compared to pants with sweater	.4	N.S.

Scores from subjects within each group were examined according to demographic data. Scores from specific demographic groups were compared to scores of different demographic groups for comparison of means. A t test was calculated to analyze differences. No significant difference was found between scores of subjects with respect to gender, age group, educational level or previous visits to an emergency department (See Table 8).

When directed to choose the photograph of the model most like their "ideal" nurse, 78 subjects (87.64%) selected the model dressed in the white uniform, 3 subjects (3.37%) selected the model wearing the scrub suit, and 8 subjects (8.99%) selected the model wearing white pants and a blue sweater.

Table 8

t Test for Comparison of Mean Scores Within Groups for Demographic Conditions

Group Initially Shown Nurse Model in White Uniform	
Demographic Condition	t value[a]
Gender	
Female/Male	.531
Age Group	
Ages 18-45/46-61+	.028
Educational Level	
Did Not Finish High School, High School Grad/Voc School, Some College, College Grad	.700
Previous Visits to Emergency Department	.180
Yes/No	

Group Initially Shown Nurse Model in Scrub Suit	
Demographic Condition	t value[b]
Gender	
Female/Male	.285
Age Group	
Ages 18-45/46-61+	.413
Educational Level	
Did Not Finish High School, High School Grad/Voc School, Some College, College Grad	.852
Previous Visit to Emergency Department	.613
Yes/No	

Table 8. (Continued)

Group Initially Shown Nurse Model in White Pants and Blue Sweater	
Demographic Condition	t value[c]
Gender	
Female/Male	.890
Age Group	
Ages 18-45/46-61+	.322
Educational Level	
Did Not Finish High School, High School Grad/Voc School Grad, Some College, College Grad	1.251
Previous Visit to Emergency Department	.364
Yes/No	

[a] α at .05 = 2.045. [b] α at .05 = 1.042. [c] α at .05 = 2.64.

The ranking of the preferred model was not consistent with the scoring on the first section of the questionnaire. The model in the white uniform received the highest mean score on the first section of the instrument and was selected by the highest number of subjects as most like the "ideal" nurse. However, the model in the scrub suit received the second highest mean score on the first section of the questionnaire but was selected as most like the "ideal" by the fewest number of subjects. The model in the white pants and blue sweater received the lowest mean score on the first section of the instrument but was selected as most like the "ideal" by more subjects than the model in the scrub suit.

Chapter 5

Discussion and Implications

Discussion

This research study examined the differences in emergency patients' perceptions of trustworthiness in the nurse as affected by the nurse's attire. Literature from many disciplines suggested that characteristics and qualities are attributed to people based on the clothing they wear. Uniforms, especially, communicate information about the role, responsibilities and privileges of the wearer and influence how the wearer is perceived.

Subjects in this investigation perceived a greater level of trustworthiness in the nurse model wearing a white uniform as measured by the Trust Perception Questionnaire. This perception was observed across several levels of age, educational background, gender and previous visits to an emergency department. These results are congruent with research in other areas of study and consistent with role theory from a symbolic interactionist view, communication theory, and the meaning of trust.

The majority (87.6%) of subjects selected the model in the white uniform as most like a picture of their "ideal" nurse. This suggested that the identity of the nurse was closely entwined with traditional nursing attire. The selection of the photograph of the nurse model in the white uniform as most like the "ideal" nurse is consistent with the perception of a higher level of trustworthiness in the same nurse model

by subjects in this investigation. The wearing of the uniform appeared to contribute to the perception of the elements necessary for the development of trust in a relationship.

Applications to Practice

Because the subjects perceived the nurse model in the white uniform as more trustworthy and selected the same model as the preferred nurse, the implications for nursing are clear. First, amid the wide variation of dress worn by professional nurses, patients are more willing to trust the nurse wearing a white uniform. Dress is especially significant when little else is known about the nurse by the patient. In emergency settings, when time is limited and nurse-patient interactions proceed quickly, the uniform symbolizes authority, competence and skill, and promotes the development of trust. In experiencing trust, the patient is more likely to share true feelings with the nurse, which, in turn, allows greater accuracy in nursing observations and diagnosis, and increased effectiveness in interventions. The perception of trust may affect the patient's willingness to cooperate with the nurse and comply with instruction and teaching.

Second, the white uniform reinforces an image which provides a means of access to the patient. The uniform permits the nurse to address personal issues and be privy to confidential information. The uniform allows the patient to communicate concerns about health problems to a stranger. The individual patient's perception of competence and trust in the nurse is fundamental to the development of the nurse/patient relationship.

Therefore, professional nurses giving patient care in an emergency department should consider how nursing attire is perceived by patients and be aware that the white uniform contributes to the perception of trustworthiness in the nurse. This perception may result in more effective nurse-patient interactions and the attainment of nursing goals.

Limitations

The findings of this study can only be generalized to a particular population of West Michigan - patients with non-acute illnesses and injuries who came to three hospitals during the summer of 1986. The findings are further limited by several other factors. First, the wording of the consent form was difficult for several people to understand. Three people who qualified as subjects stated that they did not understand the consent form and were not willing to sign it. Second, no definition of registered nurse was given to subjects. Therefore, responses were based on subjects' understanding of this term. Third, the study did not reflect perceptions of the young or very old, teenagers or parents of children, friends or relatives of patients. The opinions or perceptions of a friend or significant other often influence a patient's thinking. Finally, the study did not examine the perception of patients who are acutely ill or injured but still conscious, alert and perceiving. These are patients for whom the perception of trustworthiness in the nurse during the initial contact with the health care system is important.

Suggestions for Further Research

Suggestions for further research include investigation into areas identified as limiting factors in this study. First, the wording of the consent form should be simplified in order to promote better understanding of its content by people with poor reading abilities. This might allow a wider demographic background for subject participation. Second, an investigation of the relationship between trustworthiness and education and/or experience and/or title would be suggested. Is there a relationship between the patient's knowledge of the amount of education or type of nursing experience held by the nurse and the patient's perception of specific attributes of the nurse? Does the nurse's title or position affect how the patient perceives the nurse's ability?

Third, a similar study should be done which includes parents of young patients and/or friends and relatives of young or old or infirmed patients. The perceptions of these significant others often influence patients' thinking.

An empirical study which examines interactions between patients and nurses would be valuable. Subjects (patients) would be directed to rank or rate specific attributes or qualities of the nurse during interactions. These interactions would be controlled for actions and dialogue of the stimulus figure but varied according to the nurse's attire. This method of research could be utilized in examining the perceptions of patients who are more seriously ill or injured.

Conclusion

The research investigation provided evidence of a difference in emergency patients' perceptions of trustworthiness in the nurse based on the nurse's attire. This difference in perception was observed across several levels of age, gender, educational level and previous visits to an emergency department. The findings suggest, that in addition to the attainment of knowledge and skill, the professional nurse must give attention to what he/she is wearing and how his/her attire is perceived by patients. "For better or worse clothing communicates. Now, as before, it is important that nurses dress for success!" (Kalisch & Kalisch, 1985, p. 893).

Code #_____

Appendix A

Perception Questionnaire

This is a questionnaire to determine impressions and opinions of patients about health care personnel. Look at the picture and read the statements below. Respond by giving as true a picture of your impression or opinion as possible. Make a ✓ mark by those statements which you think apply to the picture. Leave the other statements blank. There are no right or wrong answers.

_____ 1. It is easy to tell that this person is a registered nurse.

_____ 2. This person is probably not a nurse.

_____ 3. I would expect this person to know a lot about nursing care.

_____ 4. This person would answer my questions about health problems honestly.

_____ 5. I would hesitate to take medicine from this person.

_____ 6. This person would believe me when I tell her I have pain.

_____ 7. This person would take good care of my child if he or she were sick.

_____ 8. This person would not trust me to follow instructions.

_____ 9. This person would respect my confidence in her.

_____ 10. This person would most likely have to check with someone else before answering my questions about my health problem.

_____ 11. This person would recognize a serious health problem.

_____ 12. I would not be willing to share information about my personal problems with this person.

The following information will be helpful in learning if people of different ages and backgrounds have different impressions or opinions about health care personnel.

Your age
_____18-30
_____31-45
_____46-60
_____61+

Your sex
___female
___male

Your educational level
___did not finish high school
___high school graduate
___vocational school graduate
___some college
___college graduate

Have you been a patient in an emergency department before? ___yes ___no

Please look at all three (3) pictures. Which photograph is most like your picture of the "ideal" nurse. Choose only 1 and write the color of the dot on the picture in the blank.

_____

Thank you very much for your help.

Appendix B

Verbatim

I am Marcia Westrate, a graduate student in Nursing at Grand Valley State College. _____, the Director of Nursing at _____ Hospital has given me permission to contact you to determine if you would be willing to participate in a research project concerning patients' perceptions and opinions about nurses.

If you agree to participate, I will ask you to look at some photographs and complete a questionnaire concerning those photographs before you are seen for treatment. It should take about five to ten minutes.

All of your responses will be anonymous and held in confidence by me. You may ask me questions and you may drop out of this project at any time. The results of this study will be available to you.

Appendix C

Informed Consent for Human Subjects Projects

I, _____ agree to serve as a subject in the investigation of Patients' Perceptions of Nurses under the supervision of Marcia Westrate, a graduate student at Grand Valley State College. The investigation aims to develop a better understanding of patients' perceptions and opinions about nurses. The procedure in which I will participate is the completion of a questionnaire which will require five to ten minutes of time before I am seen for treatment. There are no expected risks or benefits to me, and whether or not I participate will not affect the care I receive in this emergency department.

I understand that confidentiality will be protected and that I am free to withdraw from participating in this project at any time. I have had an opportunity to ask questions.

I have read and fully understand the foregoing information.

_____ _____

Date Subject's Signature

_____ _____

Witness Code Number

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