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**PATTERNS OF COMMUNICATION BETWEEN NURSES AND INTUBATED
PATIENTS**

The University of Arizona

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PATTERNS OF COMMUNICATION BETWEEN
NURSES AND INTUBATED PATIENTS

by

Margaret Przybylowicz Gagne

A Thesis Submitted to the Faculty of the
DEPARTMENT OF NURSING
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE
In the Graduate College
THE UNIVERSITY OF ARIZONA

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ABSTRACT

The purpose of this study was to explore the process and content of communication between nurses and intubated patients in the critical care setting. Six nurse-patient pairs were observed in the critical care units of a northeastern medical center hospital. The observations and tape recordings were analyzed utilizing grounded theory methodology to identify communication patterns

The nurse-patient communication observed was characterized by a passive patient role and an active nurse role. Nurses were primary in determining the frequency and type of interactions that occurred. Three communication patterns were identified: procedural/task-oriented interaction, need related interaction and social-casual interaction. Nurses also utilized communication techniques to facilitate patient participation in communication.

CHAPTER 1

INTRODUCTION

Communication, derived from the Latin word "communicare", means "to make common, share, participate or impart" (Skipper and Leonard, 1965:8). It is a complex, dynamic, transactive process through which individuals share ideas, information and feelings. The importance of communication to nursing practice cannot be overemphasized. King, a nursing theorist, incorporates communication into her definition of nursing: "a process of action, reaction, interaction and transaction" (1968:27). Daubenmire (1976), a nurse researcher in the area of communication, states the science of communication is more pertinent to nursing than the science of disease or pathology. Nursing's role as a caring profession is intimately tied to its ability to provide humanistic care, the basis of which lies in human to human relating.

Several recent trends in health care and society have increased the importance of communication in the provision of health services. First, there has been an increasing awareness of the role that individual values, lifestyle and environment play in the development, maintenance or recovery from an illness. Communication between health care providers and their patients is the key link to exploring and altering these variables (Peitchinis, 1976). Second, individuals are taking a more active responsible role in seeking and utilizing health services. The consumer movement in the health care area increases the importance

of patient satisfaction with health services. Communication between health care providers and recipients is important in maintaining patient satisfaction and continued utilization of health services (Peitchinis, 1976).

In the first chapter, the specific problem of communication between nurses and intubated patients will be introduced. The significance of the problem and the importance of increased knowledge about communication between nurses and intubated patients to nursing practice will then be addressed. Finally, the specific focus of the present study will be outlined.

Overview of the Problem

The theoretical importance of communication to nursing is extended into the educational and practice setting. A majority of university based schools of nursing incorporate communication theory into their curricula. Communication skills are stressed in most job situations as well (Peitchinis, 1976).

Second, studies have indicated dissatisfaction with communication between nurses and patients. Mumford and Skipper (1967) found that 60-70% of hospitalized patients interviewed expressed dissatisfaction with their communications with caregivers, including nurses. Jarvis (1970) interviewed 47 post-cardiac surgery patients and found that while their satisfaction with physical nursing care was high, they expressed a need for better communication and human understanding from the nursing staff.

Many barriers to adequate staff/patient communications have been postulated in the literature to account for this dissatisfaction. Accurate and effective communication, according to Peitchinis (1976) is dependent on attributes of the communications, channels of communication and the message itself. Mumford and Skipper (1967) identified patient perceptions of the nurses as inhibiting communication. The nurses appeared too busy to talk and patients were afraid of negative feedback if they did communicate. The patients also believed communicating special needs or problems was futile, that they did not have the power to initiate changes in their care. Physiological alterations such as pain, fatigue or hunger may also interfere with effective communication (Sundeen, et al., 1981).

Certain patient populations are likely to be more susceptible to communication failures than others. All hospitalized patients share the experience of an unfamiliar environment and separation from loved ones. Certain patient groups suffer more direct derangements of their normal communication behavior, due to characteristics of their illness or treatment regime. For example, patients with sensory alterations, including visual or auditory losses, can no longer adequately receive and process communication messages. Patients with neurological disturbances that interfere with comprehension and production of speech can no longer encode and decode meaningful messages.

The present research will focus on patients who have lost the ability to speak due to the need for an artificial airway. The presence of the airway makes verbal communication impossible for these patients.

Other factors may compound communication difficulties for intubated patients. The necessity of attachment to a mechanical ventilator severely decreases mobility, altering the control that the patient has to vary his/her environment and sensory input. The precipitating illness and treatment regime may render the patient anxious and fatigued, altering his/her information processing capabilities. Intubated patients as a group exhibit a large number of risk factors which predispose them to communication failure with their caregivers.

The investigator's experience in communication with intubated patients and difficulties that arise in communication with this patient group determined the selection of this problem area for the current research. A particular incident exemplifies some of the communication difficulties experienced with intubated patients. The patient was a middle-aged woman who had undergone surgery and was ready to be weaned from the ventilator. Every time the weaning process was initiated by decreasing the respiratory rate on the ventilator, the patient became frantic, restlessly moving about the bed, tugging at the endotracheal tube, gesturing for help and indicating that she could not breathe. This message was interpreted to mean that the patient, like many other patients, was experiencing anxiety due to difficulty breathing through a series of tubes and hypoxic. Nursing interventions were based on trying to calm the patient and encourage slow, deep breathing. The patient's activity, restlessness and anxiety escalated and the weaning process was abandoned. Several attempts at weaning were made with the same result. Finally, a thorough examination of the ventilator for any

malfunctioning was made. The routine parameters checked hourly by nurses were functioning. However, on closer examination the nurse identified that the valve to the reservoir bag was in the wrong position. When the respiratory rate was decreased, the patient was unable to take supplemental breaths from the reservoir. The patient was transmitting a message that was incorrectly interpreted by the nurse. Nursing intervention based on misinterpretation of patient need exacerbated rather than resolved the patient situation.

In summary, the importance of communication to patient care was discussed. Evidence of patient dissatisfaction with nurse-patient communication was presented. Many barriers have been proposed that could lead to communication failure. Intubated patients and other patient groups experiencing sensory or neurological alterations are particularly susceptible to communication failure.

Statement of the Problem

The problem being addressed in the present study is the communication between nurses and patients who have been intubated for artificial ventilation. Communication between nurses and intubated patients is at risk for breakdown or failure due to alterations in the potential channels of communication and attributes of the communicators.

Significance of the Problem

Intubation is a devastating experience for a patient. In inability to verbally express one's needs or share experiences is coupled

with an unfamiliar environment and loss of control over activities of daily living. Many situational factors combine to increase the barriers to communication for intubated patients.

The literature on nurse-patient communication and on the specific situation of the intubated patient exhibits lack of a theory-practice linkage. Much has been written on the theory of nurse-patient communication and therapeutic relationships, but little empirical research is available to tie this theory to various practice settings. The literature available on communication and the intubated patient is almost entirely anecdotal or subjective in nature. Many interventions are proposed to aid communication with intubated patients: speak directly to the patient, use touch, avoid use of medical jargon (Blomefield, 1978), provide explanations, make eye contact, avoid stereotypical interactions (Benoliel and Van de Velde, 1975). Other subjective accounts suggest the benefits of improved communication between nurses and intubated patients, including decreased incidence of intensive care unit (ICU) psychosis and reduced anxiety (Obier and Haywood, 1973). No empirically based studies have been done that look at the process and content of communication with intubated patients and indicate which of the techniques and behaviors suggested are really effective in terms of patient outcomes.

Hein (1980:3) stated that "communication skills are often utilized as if we had a plan, but we are not aware of the plan before

during or after the communication." If the communication is effective, it would have to be attributed to luck or "intuition." The reliance on intuition in communication is inefficient, unscientific and unreliable (Daubenmire, 1976).

The American Association of Critical Care Nurses (AACN) has identified the need for research on communication between nurses and intubated patients. In the Delphi study exploring the most significant problems of critically ill patients that should be addressed by nursing research, the following question was ranked ninth overall: "What are effective nursing interventions in patients with impaired communication (i.e., intubated) to minimize anxiety, helplessness and pain?" (Lewandowski and Kosisky, 1983:39).

The lack of research in the area of communication between nurses and intubated patients dictates an exploratory approach. This study examined the communication process as it operates between nurses and intubated patients. It is hoped that by identification of specific variables that impinge on the communication process in the ICU setting and by delineating the patterns of communication that occur, eventually nurse researchers may be able to experimentally evaluate the effectiveness of certain patterns of terms of patient outcomes.

Purpose of the Study

The purpose of this study was to observe communication between

the nurse and the intubated patient. Variables that effect the communication, aspects of the communication behavior and the outcomes of communication will be observed. The relationships between salient variables, communication behaviors and patient outcomes were also examined.

Summary

In Chapter 1, the problem of communication between nurses and intubated patients was introduced. The importance of the problem to patient care was identified and the significance that research in this area will have for nursing practice was discussed. Finally, the specific purpose of the study, focusing on the communication process and content between nurses and intubated patients, was presented.

CHAPTER 2

CONCEPTUAL ORIENTATION

The conceptual orientation for the study, presented in Figure 1, attempts to delineate and organize some of the variables involved in nurse-patient communication. Three general categories of variables were identified, based on communication theory, subjective studies and empirical research. The physiological state of the nurse/patient, psychological state of the nurse/patient and the environment are grouped as concepts which impinge on the communication behavior observed. Nurse-patient communication is identified as observable verbal and non-verbal behavior which may alter the third category of variables, patient outcomes. The lines depicted in the conceptual model are dashed, indicating the unknown nature of the relationships between the concepts.

The review of the literature is organized around each of the concepts identified in the conceptual orientation. Each section will include general theoretical background, any nursing literature pertinent to that concept and finally, specific studies and findings about nurse-patient communication with intubated, critically ill patients.

Physiological State of Nurse/Patient

The physiological state of the participants can influence the communication process and/or content. Communication is dependent on the individual's ability to send and receive verbal and non-verbal messages.

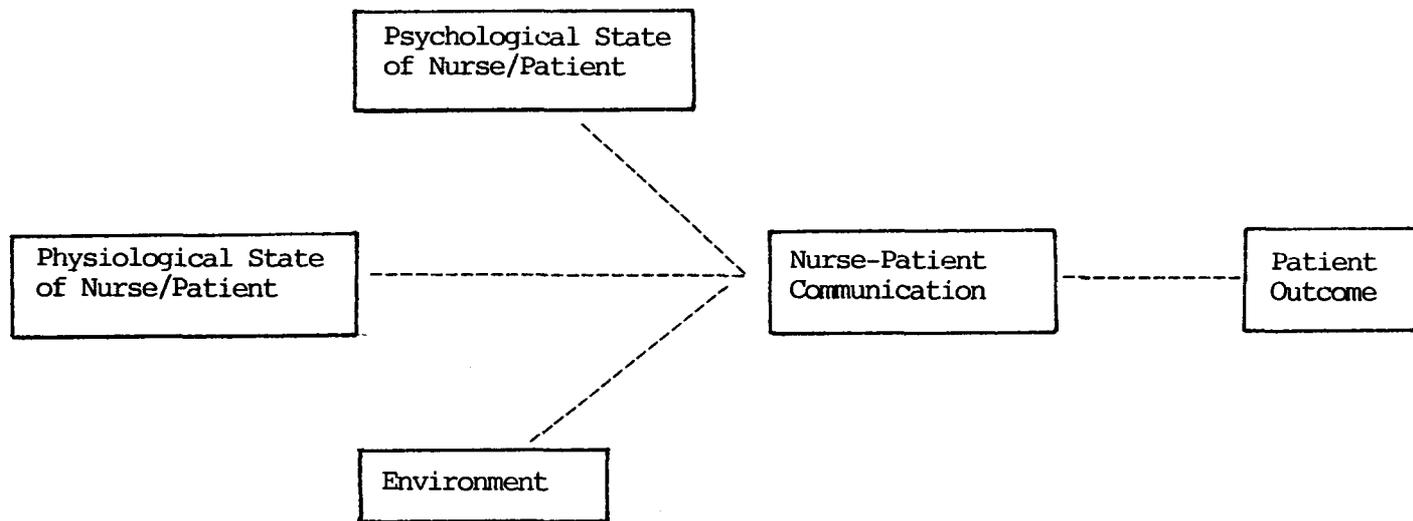


Figure 1: Conceptual Orientation

Thus, the integrity of one's sensory and motor apparatus is essential to communication. Any limitation of the individual's capacity to receive or transmit messages will alter the communication process (Sundeen, et al., 1981). Sensory losses, including visual, auditory or tactile impairments limit one's ability to receive messages (Burgoon and Ruffner, 1978). Neurological alterations that interfere with speech production or the interpretation of verbal or non-verbal messages impact on the resulting communication (Gough, 1978). Limitations or loss of normal channels of expression, for example, paralysis, restraint of extremities or loss of speech will change the communication process. Peitchinis (1976) states that the number of channels available to the receiver and the encoder affect the communication accuracy.

The internal environment of the nurse or patient also has the potential for modifying the communication process. Hunger, pain, anxiety or fatigue decrease the individual's attention to external stimuli and may impede the communication process (Sundeen, et al., 1981).

The physiological state of the critically ill, intubated patient has been identified by several authors as impacting on communication abilities. Jarvis (1970) conducted retrospective interviews with 47 post-operative open-heart surgery patients who described their physiological state as characterized by pain from all the tubes and the incision, fatigue resulting from loss of sleep and continuous thirst and mouth discomfort from the "breathing" and naso gastric tubes. The alterations in internal environment described above have the potential for

decreasing the patient's ability to communicate effectively. Pain caused by the endotracheal tube and the weight of the connective tubing was identified by Lawless (1975) and Bothamley (1975) as potentially interfering with communication.

Total physical dependency is another aspect of the patient's physiological state that has been identified in several anecdotal reports as impacting on communication. Griffin (1982) states that confinement to a limited space, loss of control over activities of daily living and loss of privacy contribute to the condition of forced dependency in intubated, critically ill patients. Levy and Stubbs (1978) identify dependency on machines and personnel to meet biological needs as a significant aspect of the critically ill patient's experience. The total dependency experienced heightens the importance of nurse-patient communication to this patient group.

Finally, the intubated patient's impaired communication ability has a direct impact on communication between the nurse and the patient. Bothamley (1975) states that inability to communicate via the normal medium of speech necessitates alterations in nurse-patient communications. Lawless (1976) and Bridges and Clark (1981) concur.

Psychological State of Nurse/Patient

The psychological state of the nurse of patient can also influence communication. The factors will be divided into the psychological traits of the individual and the psychological processes of perception

and attention. An individual's cognitive level, rate of information-processing, level of communication skills, sociocultural background and attitudes are moderately stable variables that can facilitate or impede the communication process (Burgoon and Ruffner, 1978; Peitchinis, 1976).

The psychological processes of perception and attention are another aspect of the psychological state that influences communication. Perception, defined as the process of putting meaning to sensory input, is of central importance to the communication process. The perception of incoming messages, perceptions of the other communicator and perceptions of self may all impact on communication (Burgoon and Ruffner, 1978).

Perceptions of the other communicator can have a profound effect on the process and outcome of the communication. Trust, defined as the expectancy that the word or statement of the other is reliable, can increase the impact of communication (Burgoon and Ruffner, 1978). The perception of trust is based on past experience with the individual or similar others and is dependent on the consistency or predictability of that experience (Sundeen, et al., 1981). The perceived power of the other is also important to the progress and outcome of communication. The individual's perceived source of power and ability to control circumstances in comparison to that of the perceiver will affect the interpretation and impact of messages sent by the individual. The nature of power's impact on the communication will depend on the intent and

content of the message (Burgoon and Ruffner, 1978). Skipper (1965) found that patients communicated less when they perceived a personal lack of power to influence or change circumstances. The degree of perceived similarity between the participants in the communication process can impede or facilitate communication, again dependent on the nature of the communication (Burgoon and Ruffner, 1978). The perception of credibility is based on the individual's perceived competence, character, composure, sociability and extroversion and can change over the course of the communication (Burgoon and Ruffner, 1978).

Perceptions of self may also alter the process or content of communication. Perceptions of one's autonomy or the ability to meet one's needs without interference or help from others will influence the frequency and type of communication messages emitted (Sundeen, et al., 1981). Self-esteem and confidence may also influence communication (Burgoon and Ruffner, 1978).

Attention to external stimuli can influence message reception and interpretation. Selective attention is man's way of coping with the myriad of environmental stimuli that exist. Due to limitations in information processing capacity, it is impossible for man to attend to all stimuli at once. Based on past experience, familiarity with stimuli, attitudes, interest, the meaning of the observed event and mental, physical and emotional status, certain stimuli are selectively attended (Burgoon and Ruffner, 1978; Murray and Zentner, 1979). Selective

attention may result in reception of only certain aspects of the communicator's message (Burgoon and Ruffner, 1978).

The experience of the critically ill patient can alter aspects of his/her psychological state which may influence communication. Alterations in attention and perception have been identified in this patient group by several anecdotal sources. Both Benoliel and Vande Velde (1975) and Blomefield (1978) state that critically ill patients have a heightened sensitivity to their environment and focus attention on self and the present. This increased sensitivity may lead to misinterpretation of messages or environmental stimuli. (Benoliel and Vande Velde, 1975). Isolation and bombardment with unfamiliar sights and sounds can lead to a confused mental state accompanied by sensory and perceptual alterations (Lawless, 1975). The term ICU psychosis is loosely used to characterize this state of altered perceptions and loss of contact with reality (Lawless, 1975). The implications of these alterations on communication have not been systematically investigated, but intuitively would seem to have an impact. Stress and anxiety resulting from the unfamiliar situation, separation from loved ones, fears about illness and treatment may narrow and impede the individual's perception and communication (Knable, 1981).

Alterations in perceptions of self may negatively influence nurse-patient communication. Interference with the individual's normal life situation and loss of control over bodily functions and activities of

daily living may result in decreased self-esteem and altered body image (Obier and Haywood, 1973; Benoliel and Van de Velde, 1975; and Griffin, 1982). Resulting depression, apathy and withdrawal may limit patient attempts to communicate (Benoliel and Van de Velde, 1975).

Environment

The environment, defined as the setting in which the communication behaviors occur, is the final concept presented that may modify nurse-patient communication. Communication behaviors vary according to the setting in which they occur. Specific aspects of a particular setting can alter the quality of communication possible. Environmental noise can distract the participants and interfere with message transmission. Lack of privacy may influence the content or length of the communication (Sundeen, et al., 1981). In the hospital setting, inadequate staffing, decreasing the amount of time that nurses can spend with their patients, may inhibit communication. Skipper (1965) stated that communication was inhibited when caregivers were perceived as busy. Institutional goals and priorities may also hinder nurse-patient communications. Skipper (1965) hypothesized that the hospital system is oriented towards achieving physical care and cure. Within such an environment, nurse-patient communication is not highly valued and therefore is hindered.

The critical care setting may impede the communication process. Knable (1981) identified the following factors as barriers to communication

in critical care: 1) continuous noise; 2) chaos from excess traffic into and out of the unit; and 3) poor staffing patterns. The noise level and the unfamiliarity and monotonous quality of the noise were identified by other authors as non-conducive to communication (Bridges and Clark, 1981; Bothamley, 1975; Jarvis, 1970).

Nurse-Patient Communication

Introduction and Definitions

Communication forms the matrix for all human relationships and lies at the heart of the nursing process. The communication process is defined as an observable process involving the "use of physical symbol complexes for the purposes of eliciting meanings in the mind of another (Peitchinis, 1976:7)." All behaviors or "physical symbol complexes" have message value; even the absence of behavior is communicative (Daubenmire, 1976). The communication may serve as a means of transferring information or as a vehicle for establishing a relationship (Sundeen, et al., 1981). Nurse-patient communication encompasses all of the above characteristics and in addition, is usually focused on the patient with the ultimate goal being prevention, resolution or adaptation to health problems (Sundeen, et al., 1981).

The following section presents models for conceptualizing the process of communication. Secondly, the literature on the content of nurse-patient communication: verbal and non-verbal behaviors, will be presented. Patterns of verbal and non-verbal behavior relevant to

nurse-patient communication will be included next, followed by the available literature on communication process and content between nurses and intubated patients..

Communication Models: The Process of Communication

Models of communication provide a method for conceptualizing the communication process into elements involved and the flow of information. Several models are presented as a background for conceptualization of communication in this observational study.

All current communication models are based in part on the linear model of communication, proposed by Shannon and Weaver (1949). This model, depicted in Figure 2, contains six components: the information source, transmitter, signal, noise, receiver and destination. It was developed to explain the workings of communication systems (i.e., telephone). The process was depicted as unidirectional and for the purpose of information transfer.

The social science disciplines took the Shannon-Weaver model and adapted it to increase the model's applicability to human interaction in a social setting. The source and transmitter were combined into one unit with encoding and decoding potential as were the receiver and destination. The signal became the message, and the noise component was incorporated into the "context". The process was further modified through the addition of a feedback loop (Weiner, 1961) and specification

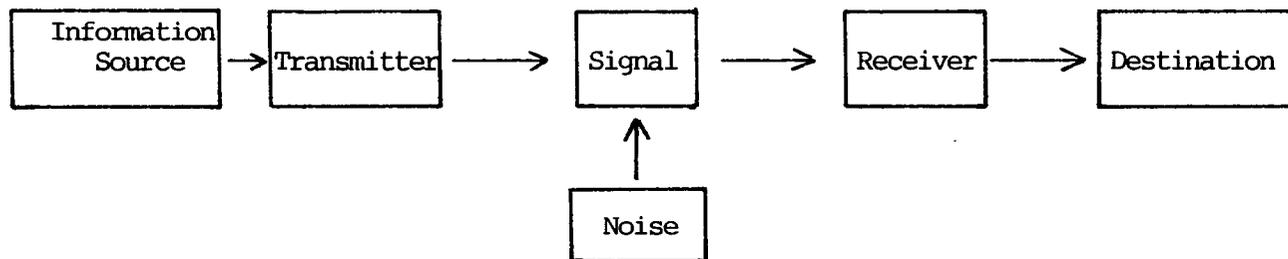


Figure 2: Shannon-Weaver Linear Model
(From Burgoon and Ruffner, 1978)

of the attributes of each component in the model. One of these adapted linear models is presented in Figure 3. The process depicted in Figure 3 begins when the source has an idea, thought or feeling that he/she wishes to express to the receiver. The source encodes the idea, producing the message. The message, a physical product of the encoding process may contain verbal and/or non-verbal behavior. The message travels via a channel (light waves, sound waves) to the receiver, where it is decoded. The receiver then produces his/her reaction to the message by encoding another message, titled feedback. Feedback is defined as verbal and/or non-verbal cues indicating whether the message was accurately received (Burgoon and Ruffner, 1978). The process may continue in a circular fashion indefinitely.

The importance of time in the communication process is emphasized by the Time Process Model of Human Interaction by Daubermire (1976), shown in Figure 4. Each communicative interchange alters the participants, depicted by the progression of nurse and patient states in time. The vectors in the diagram represent the messages between the nurse and the patient, with feedback depicted as a new message. Daubermire (1976) also emphasizes the role of the environmental context in the communication process and advocates careful recording of noise levels, lighting, temperature, equipment and any other environmental factors present.

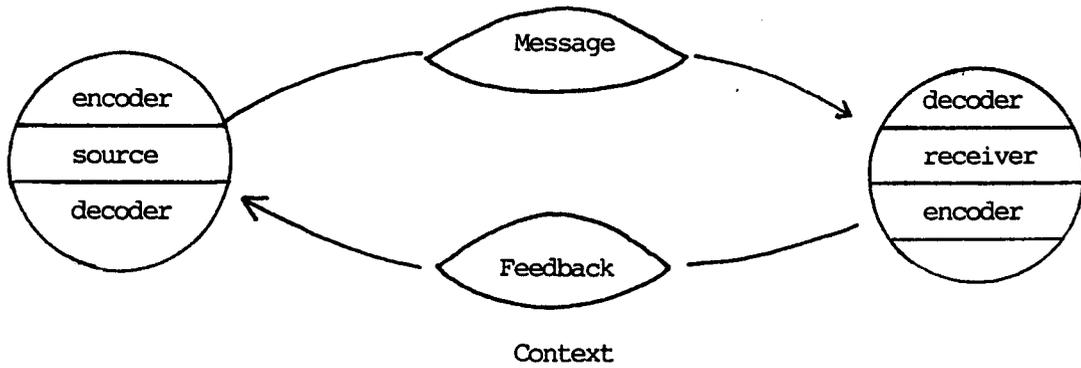


Figure 3: Elements in the Communication Process

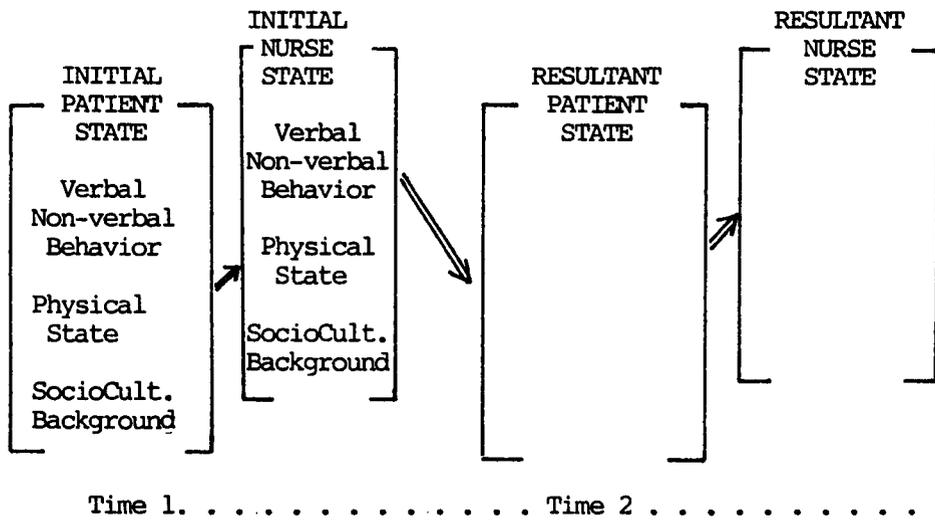


Figure 4: Time-Process Model of Human Interaction

(From Daubenmire, 1976:148)

From the models presented above, several authors have indicated potential points for breakdown in the communication process. Factors affecting the source and receiver, including physiological and psychological state and the environment, were discussed previously. Peitchinis (1976) hypothesized that message objectivity, simplicity, redundancy and the availability of feedback would increase the overall accuracy in the communication process. Burgoon and Ruffner (1978) concurred and emphasized the importance of feedback to the continuation of communication.

Due to the exploratory nature of this study, no specific communication model will be utilized as a framework for observations. Rather, aspects identified by the models described, including source and receiver message, feedback, context and change in the participants over time will be attended to during data collection.

Verbal and Non-Verbal Behavior: The Content of Communication

The content of communication or the actual communication messages are comprised of verbal and non-verbal behaviors. Verbal communication is based on language, using words for the symbolic expression of ideas and feelings. The physical symbols titled non-verbal communication are more varied and complex than verbal expressions and thus may be more difficult to interpret (Sundeen, et al., 1981).

Communication and nursing literature have identified and grouped verbal behaviors into effective or therapeutic behaviors and ineffective or non-therapeutic behaviors. Therapeutic communication encourages mutuality and sharing throughout the nurse-patient interaction. Collaboration or inclusion of the other in decision-making is one effective verbal technique suggested (Murray and Zentner, 1979). Exploration, clarification, seeking consensual validation, reintroducing reality, focusing the communication and summarization are other verbal techniques identified as effective or therapeutic (Sundeen, et al., 1981).

Burgoon and Ruffner (1978) identify distraction of the other and use of stereotypical responses as ineffective and inhibiting to further communication. The use of jargon, slang or inflammatory language may also hinder communication (Burgoon and Ruffner, 1978). Other ineffective verbal behaviors include false reassurance, use of cliches, rejection and inappropriate defense of self or others (Sundeen, et al., 1981). Cutting off the interaction or premature closure decreases the effectiveness of that interaction and may have a detrimental effect on future communications (Murray and Zentner, 1979). Interrupting the other communicator and responding to messages on a literal rather than emotional level also may inhibit interaction (Skipper, 1965).

Despite man's complex system of language and verbal communication, communication theorists estimate that two-thirds of all communication

occurs through non-verbal (Veninga, 1973). Argyle (1975) postulates five reasons for the use of non-verbal behavior: 1) lack of verbal codes in some areas, 2) non-verbal signals are more direct and more powerful, 3) non-verbal signals are more likely to be genuine, 4) use of non-verbal signals may be less disturbing to the communicators (i.e., expression of negative feelings), and 5) a second channel is useful.

Non-verbal behavior serves a variety of communicative functions, including modification of verbal behavior, expression of emotions, expression of interpersonal attitudes and conveying information about self and others (Argyle, 1975). Non-verbal messages may support, contradict, substitute for or elaborate on verbal messages (Daubenmire, 1976). Structure may be added to the verbal message via non-verbal behavior which accentuates certain aspects of the utterance (Argyle, 1975). The non-verbal code may be better adapted for conveying emotional states. Happiness, surprise, fear, anger, disgust and interest are expressed using similar non-verbal behaviors across cultural contexts (Argyle, 1975). Communication of interpersonal attitudes also occurs via non-verbal behavior. Negative attitudes appear to be more easily communicated non-verbally, perhaps due to conventional constraints against negative verbal expression (Argyle, 1975).

The medium or codes for the expression of non-verbal communication are varied. Kinesics, proxemics, haptics and para-language will be discussed.

Kinesics is the most familiar category of non-verbal behavior and includes facial expression, gaze, gestures and bodily movements and posture. The face is the most important area of the body for non-verbal signals. Facial expression, including aspects of the mouth, eyebrows, skin (color, presence of sweat) and nose, is the primary mode of emotional expression utilized. The face is also an important signalling area during interactions, providing feedback and support for the other's communication (Argyle, 1975).

Gaze is another important dimension of non-verbal behavior. The duration and quality of the gaze influence the interpretation of messages by the receiver. Eye contact is defined as mutual gaze; individual gaze involves looking at the other without their returning the gaze. Interpersonal attitudes are most often expressed through gaze and eye contact. Humans tend to look longer at individuals that they like. However, prolonged, uninterrupted gaze may indicate dislike or an attempt to dominate. Avoidance of gaze can indicate anxiety, shame, embarrassment or intent to deceive (Argyle, 1975).

Gestures and bodily movements are often linked with speech. Gestures may signal attention, illustrate a point, provide feedback or emphasize part of the verbal message. A body of culturally specific gestures also convey meaning, for example, head nodding, hand raising, or a pat on the back. Level of emotional arousal may be indicated by diffuse, repetitive, meaningless movements (Argyle, 1975).

Finally, posture is important in communicating interpersonal attitudes. Intimacy and liking is indicated by leaning toward the other communicator. Relaxation of posture may indicate liking or may be due to higher relative status. The face, as mentioned before, shows the type of emotion while postural stance can indicate the intensity of the emotion (Argyle, 1975).

Proxemics is defined as the structuring and use of space in communication (Burgoon and Ruffner, 1978). Dimensions of spatial behavior include proximity, orientation of body in relation to another, height and movement in the physical setting. Affection or liking is expressed primarily by proximity; whether one is in the intimate zone (0-18"), personal zone (18"-4'), social-consultive zone (9'-12') or public zone (greater than 12') (Argyle, 1975). Most nursing interactions occur in the intimate or personal zone, where physical contact is possible (Murray and Zentner, 1979). Orientation of the communicators gives information about the interpersonal relationships as well, with a side-by-side orientation indicating cooperation and an en face position, confrontation. Height, whether one communicator is positioned above the other, may indicate greater power or status. Movement within the physical setting can serve as interaction signals, indicating a desire for interaction by moving towards the other or a desire for termination, by moving away (Argyle, 1975).

Haptics or the use of bodily contact as communication is one of the first and most fundamental means of expression that humans learn. The pathways for kinesthetic and tactile sensations are the first to undergo myelinization and become fully functional in the infant (Weiss, 1979). Touch can convey comfort, nurturance, intimacy or anger and frustration depending on how and when it is utilized (Argyle, 1975). Qualities of touch which determine its communicative nature include the duration, location, extent, intensity, frequency and sensation generated (comfort or discomfort) (Weiss, 1979).

Paralanguage or non-verbal vocalization, is the last category of non-verbal behavior to be discussed. Voice quality, speed of delivery, loudness, pitch, speech disturbances and emotional noises comprise the class of non-verbal vocalizations. These parameters vary with emotional states, like stress, anxiety, anger and with interpersonal relationships. Non-verbal vocalizations tend to be highly individualized and thus are more difficult to interpret (Argyle, 1975).

Communication Patterns

Certain verbal and non-verbal behaviors are organized into predictable sequences under specific circumstances. The behavior pattern is a series of acts governed by social convention and communication context. An everyday example of a communication pattern is the greeting

pattern. Greeting begins with a "distant salutation"; a non-verbal gesture or smile that acknowledges the other. During the next phase, approach and preparation, the behaviors remain non-verbal, including averted gaze and grooming behavior. The close phase is comprised of verbal expressions of greeting and bodily contact. Finally, the attachment phase is characterized by personal inquiries and expressions of interest in the other (Argyle, 1975).

Nurse-patient communication patterns in the health care setting are not as well defined as the greeting pattern. Murray and Zentner (1979:3) define a communication pattern as a "relatively consistent network of messages sent and received in short- or long-term exchanges; a habitual way of interacting with others." Nurse-patient patterns are described as "purposeful, reciprocal and expressive, with the emphasis on the patient (Murray and Zentner, 1979). Several anecdotal and empirical literature sources describe communication patterns. These patterns will be presented: effective patterns first and ineffective patterns following.

Sundeen, et al. (1981) describe communication patterns as characteristic modes of communication. A relating pattern is outlined including purposeful, reciprocal dialogue and meaningful interaction. No stages or non-verbal behaviors are specifically identified for the relating pattern.

An empathic communication pattern was investigated by Stetler (1977). She defined empathy as a process by which one individual comes to understand the feelings and experiences of another and successfully communicates that to the other. Stetler's study attempted to define verbal and vocal behavior indicative of empathetic communication; non-verbal behaviors were not officially investigated. The results showed no significant differences between empathic and non-empathic nurses in verbal or vocal behavior. From anecdotal records that included some aspects of non-verbal behavior, Stetler hypothesized that congruence between verbal, vocal and non-verbal behavior may be the key to the empathic communication pattern.

Veninga (1973), a hospitalized communication expert, categorized caregivers according to the orientation of their communication. He found three distinct patterns of communication. The source-oriented communication pattern was focused on the source. Communication behaviors were disjointed and impersonal, little eye contact with the patient was utilized and questions were interpreted as personal threats. Individuals using a message-oriented pattern were focused on the task and exhibited disinterest in the patient's feelings. Feedback from the patient was ignored. These caregivers seemed continuously busy and frequently used an authoritarian approach to the patient. The final communication pattern noted was the receiver-oriented pattern. These caregivers encouraged patient verbalization, listened, used clarification and empathized with

the patient. The receiver orientation was described as the only effective pattern.

Several ineffective communication patterns were described in the literature, including exclusion, blaming, placating, computing, and distracting. Exclusion was identified in an anecdotal study by Anderson (1979). In the exclusion pattern, verbal behavior is directed away from the patient to others (nurses) in the environment. The content of the verbal messages is social or personal, making it difficult for the patient to enter the interaction. Non-verbal behavior includes little eye contact with the patient and a task rather than a patient focus. The patient remains outside the interaction.

The "blaming" pattern is characterized by verbal disagreement with any communicative messages. Non-verbal communications may be incongruent with the verbal disagreement and demands of this pattern, indicating loneliness and decreased self-esteem (Sundeen, et al., 1981). The "placating" pattern is the opposite of blaming, indicated by verbal agreement with any message received. Again, non-verbal messages contradict the verbal behavior and may express unacceptable emotions or feelings that don't go along with the "good" patient image (Sundeen, et al., 1981).

The "computing" pattern involves a barrage of highly intellectual, theoretical verbal behavior with no acknowledgement of feelings or emotions. Non-verbal messages increase the distance between communicators

and attempt to suppress emotions. Finally, the distracting pattern utilizes irrelevant verbal communication in response to the other's concerns. Non-verbal expressions may indicate increased anxiety and tension, due to interference with the communication process (Sundeen, et al., 1981).

Nurse/Patient Communication: Intubated Patient

No empirical studies are available in the literature on the process or content of communication between the nurse and the critically ill intubated patient. The patient's need for communication in the critical care setting was identified by Jarvis (1970) through retrospective interviews with 47 post-operative cardiac surgery patients. These patients consistently expressed a need for emotional support and human understanding. The following section is based on anecdotal accounts which have suggested verbal and non-verbal communication behaviors to utilize with critically ill intubated patients.

Lawless (1975) and Obier and Haywood (1973) both advocate a "collaborative" approach with critically ill patients, allowing them as much choice and decision-making as possible. Specific behaviors that implement this approach are not indicated. Recognition and acceptance of the patient's feelings is another non-specific patient approach presented (Obier and Haywood, 1973).

Effective verbal behaviors to utilize with critically ill, intubated patients include explanation of the treatment plan and any procedures prior to their occurrence (Levy and Stubbs, 1978; Blomefield, 1978; Griffin, 1982; and Benoliel and Van de Velde, 1973). Bridges and Clark (1981) suggest communication that maintains the personal identity of the patient, emphasizing his/her home life, family preferences or concerns. Giving information and clarifying misconceptions and distortions of reality are indicated by Griffin (1982) and Obier and Haywood (1973) as being helpful to critically ill patients. Encouragement of specific and non-specific ventilation and illustrating concern for low self-esteem or depression are also recommended (Obier and Haywood, 1973). Avoiding stereotypic ways of interacting with patients and observation of social amenities when addressing the patient are two final suggestions for effective verbal communication (Benoliel and Van de Velde, 1973).

Several ineffective verbal behaviors are identified by Bothamley (1975) as hindering nurse-patient communication in a critical care setting. Failure to address the patient as a person and talk directly to him/her was one ineffectual communication technique. Discussing the patient's condition with others in his presence was also identified as non-conducive to effective nurse-patient communication.

Non-verbal behaviors utilized with intubated patients included sitting at the patient's level while communicating (Obier and Haywood, 1973), establishing physical contact with the patient (Blomefield, 1978),

avoiding roughness in handling patients and using eye contact (Benoliel and Van de Velde, 1975). Communication aids that overcome verbal deficits are also discussed. Pen and paper, magic slates, finger writing, alphabet or vocabulary boards and lip reading are among the methods suggested (Lawless, 1975; Bridges and Clark, 1981). Lawless (1975) indicated that lip reading is probably the easiest technique to use. She suggests identifying the key words in the message and the category of the message will improve communication accuracy and speed.

In summary, a definition of communication was presented and models identifying the process of communication were discussed. Communication content in terms of verbal and non-verbal behaviors was then presented and the concept of communication patterns was identified. Finally, the subjective, anecdotal literature on communication between nurses and intubated patients was reviewed in terms of suggested verbal and non-verbal behaviors.

Patient Outcome

Patient outcome is broadly defined as any alteration in the physiological or psychological state as the direct or indirect result of caregiver activities. The importance of communication to nursing practice is its hypothesized beneficial effect on patient outcomes (Daubenmire, 1976). The literature investigating the relationship between communication and

patient outcomes focuses mainly on the effects of different types of pre-procedural or pre-operative explanations on post-procedural stress levels, hospitalization length and other outcome measures. These studies will be presented followed by two other type studies related to communication and patient outcomes. In the final portion of the chapter, anecdotal and empirical work on communication and patient outcomes with intubated critically ill patients will be presented.

Skipper (1965) conducted an exploratory study via retrospective interviews with 86 cardiovascular and gastrointestinal inpatients. The data he collected indicated that explanations to the patient about their illness, upcoming procedures and treatment plan helped them predict events and increased their sense of control. This ultimately decreased anxiety, increased the patient's confidence in their caregiver's skills and increased their cooperation with caregivers. Limited communication had a deleterious effect on the patients, increasing their anxiety and decreasing future attempts at communication.

Meyers (1964) explored the impact of three types of preparatory communication on stress levels associated with an unfamiliar procedure in 72 hospitalized patients. The three communicative strategies utilized were: 1) a structured explanation about the procedure, 2) no information about the procedure, and 3) a distractive communication during the procedure. A post-procedure interview evaluated the patient's stress level, in terms of accuracy of recall of procedural details, talkativeness

and overestimation/underestimation of aspects of the procedure. The results showed less tension in the group that received the explanation with tension being greatest in the distraction group.

Lindeman and Aerman (1971) compared the effects of a structured versus an unstructured pre-operative teaching plan on the post-operative ventilatory function and length of hospital stay of 261 general surgical patients. The structured pre-operative teaching treatment consisted of specific methods of presentation and content. The experimental group showed higher scores on tests of post-operative ventilatory function and a decreased hospital stay when compared to the control group.

Johnson (1972) explored the effects of specific types of explanatory messages (sensation versus procedural) with no pre-procedural message on anticipatory distress, in the procedural restlessness and tension in 99 patients awaiting endoscopies. Her results indicated that both messages appeared to reduce anticipatory distress and that patients who received sensory information showed less tension during the endoscopy.

Schmitt and Wooldridge (1973) found that extra preparation for surgery, utilizing a small group format had a positive effect on post-operative patient outcomes. The group receiving the extra explanation and preparation participated more in their post-operative care, exhibited decreased tension and anxiety, slept better, required less pain medication and were discharged from the hospital sooner than the control group.

Finally, Hartfield, et al. (1982) compared the effect of specific sensory information versus procedural information on the anxiety and expectations of patients undergoing a barium enema. Her results supported earlier work by Johnson indicating that specific content (i.e., sensory) of the explanations reduced anxiety. The patients in the sensory group reported their experiences were more congruent with their expectations, as well.

In summary, pre-procedural explanations of a specific type were found to impact on patient outcome variables. Two other studies also relate communication to patient outcome.

A study of Tarasuk, et al. (1965) examined nurse-patient communication surrounding a request for pain medication. The investigator responded to the experimental group, attempting clarification of their needs prior to supplying the pain medication while the control group were answered in an instrumental way by the medication nurse. All subjects in the control group received pain medication, as compared with 31% of those in the experimental group. The investigator concluded that the task-focused communication pattern utilized in the control group decreased the effectiveness of patient care.

Another study (Korsche and Negrete, 1972) reviewed 800 visits to an out-patient pediatric clinic. Visits were audiotaped for interaction analysis and post-encounter interview was performed to elicit patient

satisfaction and compliance information. Satisfaction with care received was shown to be highly related to compliance with prescribed regime. Fifty-three percent of most mothers who were satisfied with the care complied, compared to only 16% in the dissatisfied group. Dissatisfaction was related to understanding and the doctor-patient communication that occurred. The use of jargon and disregard for the mother's concern were two behaviors identified that decreased satisfaction. These studies indicate a loose correlation between nurse-patient communication and patient outcomes for several specific patient groups and settings.

Patient Outcomes/Intubated Patient

The link between nurse-patient communication and outcomes for the intubated patient is admittedly tenuous. Subjective sources indicate the overall beneficial effect. Bothamley (1975) thinks that increased communication and rapport with intubated patients may lessen the need for sedation and increase tolerance for mechanical ventilation. Lawless (1975) maintains that effective nurse-patient communication can help the patient cope more successfully with his illness, reduce anxiety and increase contact with reality. Finally, Obier and Haywood (1973) pg. 53, state that "replacing haphazard contacts with purposeful, informed communication has the potential for reducing morbidity...and affecting overall mortality" in critically ill patients.

Several empirical studies have examined the relationship between a specific communication behavior, touch, and patient outcome variables.

McCorkle (1974) studied the impact of touch on seriously ill, non-intubated patients. Recordings were made of patient's verbal and non-verbal behavior in response to touch. A post-interaction questionnaire was utilized to obtain perceptions of the nurse. The results showed a positive response to touch in only one category of non-verbal behavior: facial expressions.

Knable (1981) explored the impact of non-procedural hand-holding on psychophysiological responses in fifteen critically ill adults, eight of whom were intubated. The results indicated a mixed physiological response to the touch; however, the non-verbal responses were generally positive.

Summary

A conceptual orientation was presented to provide a background for the study of nurse-patient communication. Antecedents to the communication process, including the physiological state of the nurse - patient, psychological state of the nurse-patient and the environmental context were defined and discussed. Nurse-patient communication was presented, consisting of process models and verbal and non-verbal content. Finally, communication was tenuously correlated to patient outcomes.

The nature of the literature available on communication precludes an experimental study. The conceptual level of nurse-patient communication is elaborated at length in the literature, but empirical studies

examining the process as it functions in nursing practice areas are scarce. Variables that may impact on nurse-patient communication and "effective" communication behaviors have been identified in general, but little information is available on the salient variables of specific behaviors that impinge on communication with intubated patients. Therefore, the focus of this study will be an exploration of the process and content of communication between nurses and intubated patients in a critical care setting.

CHAPTER 3
METHODOLOGY

In Chapter 3, the essential elements in the research design are presented and described. The rationale for an exploratory approach will be addressed first. The sample selection, description of the setting, protection of human subjects, data collection and data analysis will then be discussed.

Design

The decision to examine the problem of communication between intubated patients and nurses from an exploratory perspective was made for several reasons. Despite a moderate amount of research on communication, difficulties arise in incorporating the results into the health care setting (Daubenmire, et al., 1978). Some studies have examined specific aspects of communication in the critical care setting (Knable, 1981; McCorkle, 1974) without clear definition of the overall process and patterns of communication that occur in that setting. This results in isolated bits and pieces of information without a unifying structure that lends generality and significance to that information. The general theory of communication is well defined, however, the important variables, specific communication patterns and resultant outcomes of communication between nurses and intubated patients are unknown. Stern (1980:20) states two indications for an exploratory approach: "in attempting to study complex

areas of behavioral problems where patient variables have not been identified" and "to gain a fresh perspective in a familiar situation." The methodology, generating theory from the practice setting, results in information directly applicable to the practice setting. Continuous conceptual modification and sampling based on the variables identified rather than on a representative number of subjects increases the generality of the resultant theory (Mullen and Reynolds, 1978; Glaser and Strauss, 1967). However, sampling for this study was based on subject availability and not the conceptual variables. Based on the lack of theory pertinent to communication between nurses and intubated patients, an exploratory design was chosen.

Sample

The study sample was comprised of patients and nurses from two critical care areas of a northeastern teaching hospital. The Special Care Unit, an area for surgical patients, trauma patients and burns and the Respiratory Care Unit, with medical patients were utilized.

Selection of the patients was based on the following criteria:

1. Age 18 or older.
2. English-speaking.
3. Absence of sensory losses including loss of sight or loss of hearing.
4. Was not a neurological or neurosurgical patient.
5. Condition described as "stable" by the head nurse or charge nurse of the unit.
6. No immediate plan for extubation.

7. Responsive to verbal stimuli as exhibited by a hand grasp and eye closure to verbal command.

English-speaking adults were selected, limiting the sample to those with functioning visual and auditory systems. Sensory losses refer to total losses of either hearing or vision; patients who utilize hearing aids or glasses were not excluded. Neurological and neurosurgical patients were not included due to the impact that neurological disorders can have on mental function, speech production and message interpretation. The head nurse or charge nurse's assessment of patient stability was used to eliminate those patients in a crisis situation. To eliminate patients undergoing active weaning from the respirator, the criteria of no immediate plan for extubation was included.

A specific diagnostic group was not selected. The stable patient groups in these two critical care areas included cardiac surgery patients, trauma patients and patients with chronic respiratory failure. In the cardiac surgery group, the majority of patients were extubated within twenty-four hours of their surgery, eliminating the majority of them from the study. The number of trauma patients in the unit fluctuated, making this group by itself inadequate for obtaining a sample. Many chronic respiratory patients were older with multiple sensorimotor alterations. Therefore no specific diagnosis category was utilized in order to ensure adequate subject availability.

Nurse subjects were chosen from those caring for the patients

selected to observe. Inclusion of the nurses in the study was based on their verbal consent to participate in the study. In addition, because the investigator worked in the setting in the past, any nurse who was personally known to the investigator was eliminated if possible to minimize observer and subject bias. Both registered nurses and licensed practical nurses were utilized in the two critical care areas during the time period of the study. The nurse sample was to be limited to registered nurses for this study.

After a pilot test of two nurse-patient pairs was conducted, an initial sample size of five patients and five nurses was selected according to the criteria identified. In the grounded theory approach, sampling continues until no new categories emerge from the data. This point is titled saturation. Therefore, no upper limit on sampling was predetermined.

Setting

The physical setting for the study was a 425-bed teaching hospital located in a northeastern city of approximately 50,000 inhabitants. The hospital was an acute care, teaching center which receives referrals from several surrounding states. Two critical care areas within the hospital were utilized for the study: the Special Care Unit and the Respiratory Care Unit.

The Special Care Unit (SCU) was a fourteen-bed unit. The unit consisted of six semi-private rooms and one four-bed ward area. The

semi-private rooms were similar in space and equipment. Each had a small window and radio to provide sensory stimulation for the patients. One of the semi-private rooms and the four-bed room had a nurses' desk physically removed from the patient care area. In the other semi-private rooms, over-bed tables were utilized by the nurses for charting and as a work area.

The Respiratory Care Unit (RCU) was a six-bed unit. One of the beds could be enclosed as an isolation area, otherwise the unit was a large open ward, with curtains separating patient areas. There were several large windows in RCU and two televisions mounted on the walls that could be shared by several patients. A large nurse's station was located in one corner of the ward, with utility areas located centrally. The monitoring equipment and ventilators were similar in design and noise to those utilized in SCU.

The organizational set-up of the two units was similar. RCU utilized a primary nursing approach with the maximum patient load set at two patients per nurse. SCU nurses also cared for a maximum of two patients, although primary nursing was not utilized there. The nurse was responsible for total patient care in both settings. In SCU, assistant head nurses were available on all three shifts with charge nurses appointed when the assistant head nurses were off duty. In RCU, a head nurse was present only on days. Charge nurse duties were rotated among qualified registered nurses on evenings and nights.

Data Collection

The methods used for data collection included chart audit, use of patient flowsheets, unstructured observation and tape recordings of verbal behavior. Interaction with nurses and patients was limited to observance of social amenities and evaluation of subject eligibility for inclusion in the study.

Prior to beginning data collection, several methods were utilized to introduce the project to the staff. All of the nursing staff received a copy of the research proposal with a cover letter explaining when the study would begin and what their participation would entail (Appendix A). In addition, meetings were held with the head nurses and unit instructors to discuss subject criteria and fitting the study into the unit routine. After change of shift report and nursing rounds, usually about one hour after the beginning of the shift, was the time chosen for consultation with the charge nurse over eligible subjects. The SCU head nurse requested that the investigator meet directly with staff to explain the study and answer questions; in RCU, questions were channeled through the unit instructor or head nurse to the investigator.

Pilot Study

A pilot study was performed prior to formal data collection. The purposes of the pilot study included exploring the feasibility of using both units, examining and refining the data collection tools and processes and determining the best time of day and length of time for data

collection. One patient-nurse pair was selected from each unit for the pilot study. Data were collected during the day and the evening shift to see if any major differences existed.

During the pilot study, two units, RCU and SCU, were noted to be comparable in terms of noise level, numbers of additional staff present, workload and patient environment. In addition, five weeks were needed to find two suitable nurse-patient pairs willing to participate in the study, so it was important to keep the subject pool as large as possible.

The data collection instruments were piloted to ensure completeness. The Patient Information Sheet and the Nurse Information Sheet (see Appendices B and C) were expanded to include more information about the patient's previous intubation history, pre-intubation teaching and sensory deficits (glasses, hearing aids). A data collection flowsheet was also developed to record the observational data. Initially, a two-column flowsheet was utilized, with one column for the nurse's behavior and one for the patient's. Recording observations on environmental changes was awkward with the two-column method, and time recordings tended to be haphazard. Therefore, the final flowsheet format consisted of four columns: nurse's verbal behavior, nurse's non-verbal behavior, patient's non-verbal behavior and environmental changes. Time was recorded incrementally at the left margin, and a place for initial descriptions of the setting and participants was provided (see Appendix D). Initially, the investigator had difficulty keeping up with the action. However, the four-column flowsheet solved much of the problem. If

interactions were occurring in rapid sequence, the investigator would record one as completely as possible and then note the subsequent ones in less detail, filling in later from the tape. The process ensured that the majority of the recorded interactions were as detailed as possible.

The time of day for data collection greatly influenced the amount of data collected in the pilot study. The nurse-patient pair observed during the day shift interacted frequently during dressing and linen changes and medication and bed bath administrations. In contrast, the patient studied during the evening shift slept except for a few minutes when an irritating IV awoke him. Perhaps the concentration of activities during the day shift made rest a priority for patients on evenings. The day shift hours were most appropriate for data collection.

The length of the data collection period was initially defined as two to four hours. Pilot study results indicated the time would be sufficient. It was difficult to extend the time to greater than four hours due to nursing schedules (breaks, lunch, meetings), patient level of awareness and the investigator's schedule.

The second function of the pilot test was to provide a period of adjustment for the nurse subjects, enabling them to adapt to the presence of the investigator. Schatzman and Strauss (1973) state the presence of an observer will initially disrupt the observed situation. In time, however, the presence of the investigator becomes integrated and normalized, with the situation reverting to its usual state.

Data Collection Procedure

The formal data collection began with identification of appropriate subjects by the charge nurse/head nurse of each unit. Initially, the screening was left to the charge nurse; however, as the study continued, the paucity of subjects necessitated some changes. Comments like "Mrs. --- is awake, but she isn't a very good communicator, so she wouldn't help you" indicated that other criteria in addition to the study criteria were being used to screen subjects. The investigator began to review the patients independently and consulted with the head nurses only on the aspect of patient stability.

After obtaining informed consent from the patient or the family and the nurse caring for him/her, data collection began. Tape recordings were initiated and the investigator positioned herself so that a clear view of the patient and surroundings was obtained. Initial descriptions of the nurse, patient and setting were recorded. If interaction was occurring, observation and note-taking was initiated. If no interaction was occurring, the investigator utilized the time to review the chart and flowsheet and complete the information sheets. Verbal communication was collected with the tape recorder; the first few words in a phrase were noted on the flowsheet so that data transcribed from the tapes could be easily collated with the flowsheet. Non-verbal behaviors and environmental changes were recorded in the form of anecdotal notes.

It was difficult at times to keep from being drawn into conversation with the nurse subjects. The investigator attempted to limit these discussions by responding to questions but not encouraging further

conversation and by looking down at the flowsheet or the subject. One nurse asked to read the data flowsheet and was allowed to do so.

The length of data collection varied from two and one quarter to three and a half hours. The time was determined by the data and scheduling constraints. The subject pair that were observed for two and a quarter hours exhibited consistent, unvaried communication behavior, and so a longer period was unnecessary and unproductive. One subject pair was observed on two consecutive days as the initial period was cut short due to a staff meeting. Data collection was terminated when the nurse left the unit or was required to admit an unstable patient, when the patient went to sleep or when no new data was being generated.

The tapes were transcribed onto the data flowsheet within forty-eight hours of data collection, and any additional material recalled from observations was added. Then the flowsheets were copied for legibility, and the elapsed time was checked against the tape recording.

Data Analysis Plan

The exploratory approach to data analysis utilized the process of constant comparative analysis, comparing each piece of data to every other piece. Similarities and differences were noted and these became the basis for the categories generated. As category development proceeded, concurrent with further data collection, the identifying characteristics of each category became clearer. In some cases, categories

were combined in a process titled reduction. Normally, data collection and analysis continues until no new categories are identified and saturation of existing categories is reached. Saturation may not have occurred in this study. The process ideally results in a grounded theory with specific hypothesis about the relationships between the major categories (Glaser and Strauss, 1967).

Descriptive statistics were used to present the demographic data collected on each subject pair, including sex, age, length of intubation and other information collected on the Nurse and Patient Information sheets. The initial focus of the analysis of the observational data was on the nurse-patient communication behaviors, both verbal and non-verbal. These behaviors were categorized according to content and process. From the initial categorization, different types of communication patterns emerged. These patterns, their verbal and non-verbal concomitants and the circumstances under which the patterns occurred, formed the basis for further data collection and analysis.

Protection of Human Subjects

The study was approved by the University of Arizona College of Nursing in accordance with established research criteria (Appendix E). Approval was also obtained by the University of Vermont Committee on Human Research (Appendix F) and the Medical Center Hospital of Vermont Nursing Studies Committee (Appendix G). A lay summary and consent form (Appendix H) was utilized for all subjects, explaining the general purpose of the study and their freedom to withdraw at any time.

Summary

In Chapter 3, the selection of the study methodology was presented. A brief description of the proposed sample, sample criteria and the setting was included. The proposed data collection, analysis and protection of human subjects was then addressed.

CHAPTER 4

RESULTS

In Chapter 4, the results of the study are presented. First, the characteristics of the sample are described. General trends in the data and specific communication patterns identified are then addressed.

Sample Characteristics

The study sample consisted of six nurse-patient pairs (see Table 1). The nurse subjects ranged in age from 28 to 40 with the average age being 30.5 (st. dev. 5.2). All were female, and their educational preparation varied: two bachelor-prepared nurses (BSN), two associate degree nurses (ADN), one diploma graduate and one licensed practical nurse (LPN). The original sample criteria excluded LPNs. However, patient two had only been intubated a few days, and after following him for two days to find an appropriate nurse subject, the investigator decided to include the LPN rather than lose the patient from the study. The amount of critical care experience ranged from 2 to 17½ years with the mean being 7.6 years (standard deviation [st. dev.] 5.5). Experience in the units studied varied from 4 months to 17½ years with a mean of 5.9 years (st. dev. 6.4).

The number of patients assigned to the nurses was evenly divided; three of the nurses had a two-patient assignment, and the other three were caring for only one patient each. Single patient assignments are

TABLE 1: DEMOGRAPHIC INFORMATION: NURSE/PATIENT PAIRS

Pair #	PATIENT							NURSE					
	Age	Sex	Education	Diagnosis	Previous Intubations	Period of Intubation (days)	Day of Intub. Period Trached	Age	Sex	Education	# Years Crit. Care	SCU/ RCU	# of Patients
1	73	F	High School	Respiratory Failure Pneumonia	0	18	Day 14	29	F	BSN	6½	2½	1
2	80	M	High School	Pulmonary Edema/ R/O MI	0	3	NA	40	F	LPN	17½	17½	1
3	64	F	High School	Lung CA L Upper Lobectomy	0	21	Day 16	29	F	Diploma	4	4	1
4	71	F	High School	CABGx3 Failure to Wean	0	83	Day 19	28	F	BSN	5½	4 mos	2
5	69	M	High School	Refractory V-tach Code 99 during pacer insertion	1	16	Day 15	32	F	ADN	10	9	1
6	68	M	Assoc. Degree/ Business	Sleep Apnea COPD	1	12	Day 9	25	F	ADN	2	2	2

made on the basis of acuity and scheduling. All nurses had one-patient assignments due to ample staffing and not patient instability.

The patient subjects ranged in age from 64 to 80 with a mean of 70.8 years (st. dev. 5.4). Three males and three females comprised the sample. Educational background varied: one associate degree graduate, two high school graduates and three who had not completed high school. The patient diagnoses were also varied. Two patients were intubated due to respiratory failure; in one case, precipitated by pneumonia and in the other, by a myocardial infarction. Thoracic surgery, a lobectomy and a coronary artery bypass graft was the original reason for intubation of two other subjects. The fifth subject was intubated during a cardiac arrest, and the sixth subject was intubated due to respiratory insufficiency associated with sleep apnea. Two patients had had previous experience with intubation. Patient five had experienced a forty-eight hour intubation post cardiac surgery, and patient six was intubated for respiratory failure for approximately one week. Both incidents were within the past year.

The period of intubation preceding the day of data collection varied from 3 to 83 days with a mean of 25.5 days and a standard deviation of 28.8 days. All but one of the patients had been tracheotomized between days 9 and days 19 of their intubation.

Data Analysis

A detailed description of nurse-patient communication behaviors

observed in the specialized environment of the critical care areas are presented. First, general trends in the data are introduced. Then the three major communication patterns identified will be presented with illustrations from the data. Finally, relationships between the communication patterns are discussed.

Initial Analysis

After the data were transcribed and collated, each statement was categorized for similarities and differences. Several problems arose immediately. The definition of communication behavior was the first area in need of clarification. The nurses' communication behaviors were not difficult to define as they included verbal and non-verbal behaviors. However, it was difficult to determine when a patient gesture was communicative and when it was not. To help sort out the difficulty, communication was defined as occurring when the nurse/patient produced a message with the purpose of transmitting the message to another. Patients' non-verbal behavior during the course of an interaction with a nurse was not difficult to identify. However, when the nurse was not present, non-verbal behaviors had to be repeated or an attempt made to locate the nurse (i.e., visual search) in order to be classified as communicative. Thus, behaviors that were not repeated or behaviors like rapidly leaning forward and backward while in the chair, which might be communicative but since intent to communicate was not evident, were excluded. Dividing the data into interactions was the

second difficulty encountered. Initially, interactions were defined by periods the nurse spent at the bedside, engaging the patient in communication. This definition was meaningless. In some instances, an "interaction" would proceed for forty minutes as the nurse performed daily care, even though the content and process of the interaction changed many times during that period. As the data were examined, interactions were naturally divided along content lines. Division along content lines served as the basis for development of the three interaction patterns. An interaction was a communication behavior surrounding a general topic area; i.e., procedures or patient needs. Many times these divisions also coincided with obvious initiation and termination points, such as the nurse entering or leaving the area. At times there was some overlap of communication patterns in the same interaction; for instance, a nurse checking to see if the tylenol given had relieved a headache while she was changing a dressing. In such instances, the interaction was divided into need-related and procedural portions and was categorized and analyzed from there.

General Trends

Throughout the data collection and analysis, two related themes continually surfaced: the passive role of the intubated patient in communication and the high level of responsibility and control the nurses had over the type and extent of the interactions. Only twenty-three of

approximately one hundred and thirty-five interactions were initiated by the patients. Three communication patterns were identified; need-related, procedural and social-personal interaction. The need-related category was the first to emerge from the data. Then the remaining interactions were re-analyzed with emergence of the procedural and the social-personal categories. All of the patient-initiated interactions were in the need-related category. Furthermore, the majority of patient responses to communication were either simple acknowledgement or a yes/no response. Rarely did the patients become involved in a more complex interaction.

The nurses were primary initiators and facilitators of communication. Since patient-initiated interaction was only in the area of patient needs, the amount of procedural or social/personal interaction was solely dependent on the nurse. The nurses also had primary control over the extent of the interactions. Being free to move about while the patients were of necessity stationary allowed them to more easily get the patient's attention by moving closer or terminate an interaction by leaving the bedside area. Techniques to encourage patient participation and prolong interactions were also observed. Giving a verbal interpretation of the patient's message allowed the patient to immediately correct any misinterpretation and also be reassured that his/her communication was understood. Other techniques that increased patient involvement in communication included directly requesting patient feedback and offering alternate modes of communication. The overall picture,

then, was of intubated patients relinquishing much of the control and responsibility for communication to their nurses.

Communication Patterns

Three communication patterns were identified from the data: procedural/task-oriented interaction, need related interaction and social/personal interaction. These patterns emerged based on differences in interaction content and purpose and in the specific communication techniques utilized. Each of the patterns are presented with examples from the data.

Procedural/Task-Oriented Interaction. Procedural/task-oriented interaction was the most frequent interaction pattern, accounting for sixty-five out of one hundred and thirty-five interactions. The procedural/task-oriented interaction pattern was communication that surrounded the operations that were performed to the patient or in the patient's vicinity throughout the data collection period. A procedure was defined as an operation that directly involved the patient; for example, changing a dressing or turning the patient in bed, while a task was defined as an operation that did not directly involve the patient but took place in his/her immediate surroundings. The purposes of procedural/task-oriented interaction were to prepare the patients for what to expect, primarily on a short-term basis, to guide patients safely through procedures/tasks and to assess patient toleration of the procedures/tasks. A few examples were also identified whose purpose was to increase

patient involvement in their own care.

An overview of the communication behaviors and techniques which characterize the procedural/task oriented interactions are divided into the nurse's verbal behavior, non-verbal behavior and the patient's non-verbal behavior. Examples from the data will be given to illustrate how these behaviors are integrated into the procedural/task oriented interaction pattern.

Procedural/task-oriented interaction was always initiated by the nurse. Verbal behavior was divided into four general areas: pre-procedural/task explanations, physical commands, positive/negative feedback on patient performance and requests for patient feedback. The pre-procedural task explanations were either short-term, detailing an event that would happen immediately or long-term, informing the patient of the plan for the day. An example of a short-term explanation is, "I'm going to take this dressing off around your breathing tube." Long-term explanations were not as frequent and tended to be more general as illustrated here: "What we're going to be doing is I'm going to get you cleaned up, and then I'm going to get you out of bed to a chair." The pre-procedural/task explanations also varied in the amount of information given to the patient. Simple explanations were just a statement of what to expect; for example: "I just have some medicine for you." More complex explanations could include the purpose or rationale of the procedure/task or draw a parallel to the patient's past experience. An example of a complex explanation which also includes purpose and sensory information follows: "I'm going to take this dressing off around

your breathing tube. I just want to clean around it a bit. This stuff is cold." From the observations, nurses appeared more likely to give complex explanations for procedures that required patient cooperation, entailed a certain amount of risk if the procedure did not proceed properly, or for procedures that were more invasive. Getting the patient out of bed, changing an arterial line dressing and securing the endotracheal tube are some examples. In addition, procedures which met with a negative response from the patients, most often getting out of bed, were also more likely to receive complex explanations. Also, certain nurses had a tendency to utilize one type of explanation in all situations. Nurse two, who was the only LPN in the study and who was caring for the patient with the highest acuity, used simple explanations exclusively. Nurse six, an associate degree nurse whose patient had been intubated for twelve days, also used primarily simple explanations. The other similarity between these two nurses was that they both had busy, two-patient assignments. The remaining four nurses utilized a mixture of simple and complex explanations, fitting the explanations to the situations as previously discussed.

The nurses also utilized physical commands and positive/negative feedback on patient performance in procedural/task-oriented interaction. These two verbal techniques tended to be used together when patient cooperation was essential to the procedure or task. The following example illustrates the use of physical commands and positive/negative feedback: "Okay, I want you to bend your knee up and turn over onto your right

side. I'm going to wash your back and take your temperature. That's good, you can stay like that...take it easy, I don't want you to fall out of bed on me. Okay, you can come back now."

Requests for feedback from the patients were utilized at the completion of a procedure or to obtain input from the patients on the proposed plan. The latter was especially evident when the patients exhibited a negative response to the procedure or plan. After changing the patient's tracheostomy ties, nurse six asked: "Okay, now...does that feel like it's pulling on your neck?" The next example is of several requests for feedback after the patient expressed a negative reaction to getting out of bed: "It will be better to get up this morning when you're just starting out breathing on your own than this afternoon when you're tired. Okay, do you understand what I'm saying with that?... Are you against sitting up in the chair?"

The nurses' non-verbal behavior in the procedural/task oriented interaction pattern was categorized as either direct approach/address or indirect approach/address. Direct approach/address was characterized by moving in toward the patient, leaning toward the patient, making eye contact or non-procedural touch with the nurses' attention focused on the patient. Indirect approach was illustrated by the nurse moving into the patient area but with her attention focused on objects within that area other than the patient; for example, the EKG monitor, IV's, respirator, IVAC's, etc. Also included in the category of indirect approach were situations where the nurse was already in the patient's vicinity and

would address the patient while she/he was working with or attending to other objects in the environment. Direct approach was more common in procedural/task interactions that involved a complex explanation necessitating patient cooperation or in long-term explanations that detailed future events. However, quite a bit of variation in this trend existed among individual nurses.

The passive patient role in communication is exemplified by the techniques utilized in the procedural/task-oriented interaction pattern. The most common patient behavior was categorized as acknowledgement. Acknowledgement was defined as a signal the patient was aware of the nurse's communication behavior. The signal took a variety of forms, including opening eyes, turning toward the nurse, nodding, a change in facial expression (frowning or smiling) or simply carrying out the verbal commands given. Another category of patient behavior was titled no response. No response occurred with some task-oriented explanations and explanations that were accompanied by indirect approach. Negative responses also occurred, primarily when the patient disagreed with the proposed procedure or task. In most cases, the subject was getting the patient out of bed, which patients seemed to generally resist. Negative responses included shaking of the head and frowning. Another phenomenon, titled distancing, occurred frequently in combination with the negative response. Distancing was exhibited by turning away from the nurse and closing eyes, in addition to the negative response. In most cases, distancing and a negative response occurred when the proposed procedure

undesirable and the patient had no power to alter the plan.

Examples of procedural/task interaction are presented next to illustrate how the individual behaviors are combined to form the pattern. A brief discussion will precede each example.

The most commonly observed interaction involved an explanation by the nurse with the patient acknowledging the communication. The first three examples show different types of explanations and non-verbal behavior from the nurse with the patient response limited to acknowledgement.

Example 1: Simple Short-Term Explanation/Indirect Approach/
Acknowledgement

Verbal (V)	Non-Verbal-Nurse(NV-N)	Non-Verbal-Patient(NV-P)
I just have some medicine for you.	Moves to patient, work, with NG tube.	Raises eyes (to look at nurse).

Example 2: Complex Short-Term (CST) Explanation/Direct Approach/
Acknowledgement

V	NV-N	NV-P
We're giving you a breathing treatment..that should really loosen things up.	Leans over patient en face position 10 inches away and talks.	Nods, begins to cough.

Example 3: Simple Short-Term (SST) Explanation/Indirect Approach/
Acknowledgement

V	NV-N	NV-P
Just going to get in here.	Returns to area, climbs over patient to reach respirator.	Opens eyes, then closes them.

Examples 4 and 5 are interactions in which the patient gave no response to the nurse's communication. Both involve the use of indirect approach by the nurse and deal with procedures in which the patient is not a direct participant (example 4) or with tasks (example 5).

Example 4: SST Explanation/Indirect Approach/No Response

V	NV-N	NV-P
"I'm going to get a gas, okay?"	Leans over patient to draw blood (from arterial line).	No response.

Example 5: CST Explanation/Indirect Approach/No Response

V	NV-N	NV-P
"I'm just getting an EKG, telling us how your heart is doing."	Moves to head of bed (from flowsheet) and then returns to flowsheet.	Eyes closed, motionless.

The next two examples illustrate the use of physical commands by the nurse. In example 7, positive/negative feedback is also used. The patient response is limited to acknowledgement.

Example 6: Physical Command/SST Explanation/Direct Approach/Acknowledgement

V	NV-N	NV-P
"----, open your mouth. I need to put some medication under your tongue."	Nurse moves to right side of bed, leans over patient.	Opens eyes, looks at nurse. Follows command.

Example 7: SST Explanation/Physical Command/Feedback/
Acknowledgement

V	NV-N	NV-P
"I'm going to have you sit up in the chair. Okay, let me have you put your feet over the edge please. Here we go. Balance yourself on your hands. That's a girl. Let your BP get used to the idea. When you stand, you're going to have to turn this way, towards all the tubes. You know that, hmm.	At bedside, standing Guides shoulders and knees. Pulls into sitting position. Standing in front (of patient). Arms on patient's shoulders.	Sits on edge of bed.
Okay, now I want you to slide off and sit in the chair.	Guides patient into chair.	Nodding. Swings into chair.
Beautiful, you're gorgeous!"		

Examples 8 and 9 illustrate the use of a request for feedback from the patient. In example 8, the request for feedback is slanted, indicating the desired response. A complex explanation, utilizing past experience is also shown. Example 9 shows the request for feedback in combination with a long-term explanation.

Example 8: CST Explanation/Request for Feedback/Direct Approach/
+/- Response

V	NV-N	NV-P
"You'll never guess what that doctor's going to do. Take out that other chest tube. Isn't that good? Do you remember when when they took the other one out? You have one more in, and he's going to take it out and put a dressing on."	En face about 12 inches away, leaning over, hands behind back	Nods, frowning.

Example 9: Simple Long-Term (LT) Explanation/Request for Feedback/
Indirect Approach/Acknowledgement and Response

V	NV-N	NV-P
What we're going to be doing is I'm going to get you cleaned up and then I'm going to get you OOB to a chair. How's that sound? Do you think you're ready?	(At right side of bed, giving shot.)	(Looking at nurse.) Nods in response to getting OOB. Closes eyes.

Example 10 involves the procedure of suctioning the patient and illustrates a negative response by the patient to the procedure. The nurse acknowledges the negative response and gives further explanations for continuing the procedure despite the response of the patient.

Example 10: CST Explanation/Physical Command/Request for Feedback/
Acknowledgement/Negative Response

V	NV-N	NV-P
I'm going to clean that breathing tube out a little bit. Sounds like you could use some suctioning.	Moves in toward HOB, setting up equipment.	Glances at N5, then returns to looking at ceiling.
Good, Okay, let's make you cough.	Suctions (at right SOB) leaning toward patient.	
Take some deep breaths.		Coughing, face red. Gestures; shakes head back and forth.
Okay, gonna go down again. That's thick stuff.		
Okay? Think we got it all right? Still feel a little tickle or anything down there? No? Good.		Nods. Mouths "no", shakes head.

Examples 11 and 12 illustrate the patient response of distancing.

Example 11: SST Explanation/Distancing

V	NV-N	NV-P
We'll be getting you up pretty soon.	(At bedside for need resolution.)	Shakes head, "no", turns away from nurse.
	Leaves area.	

Example 12: Complex LT Explanation/Distancing/No Response

V	NV-N	NV-P
PT isn't coming for about an hour, so you have a re- preive. They'll be here at noon, and we'll get you OOB for a couple of hours.	Checking IV's and respirator Moves to right side of bed.	Shakes head "no", frowns, closes eyes.
Well, you know, the more you get up, the stronger you'll get and then you'll get out of here. You're doing so good on your breathing, okay?	Moves to head of bed.	Remains with eyes closed.

In summary, procedural/task-oriented interaction was a pattern of communication always initiated by nurses to explain, guide a patient through and assess patient toleration of procedures and tasks. Nurses utilized pre-procedural explanation, physical commands, positive/negative feedback on patient performance and requests for patient feedback combined with indirect or direct approach. Patient responses were largely limited to acknowledgement; no response, positive/negative responses and distancing were also observed.

Need-Related Interaction. Need-related interaction was characterized by communication behaviors that were aimed at identification, clarification and resolution of patient needs. This pattern differed from the other two patterns in that a need-related interaction was initiated by both nurses and patients and involved the highest level of patient participation of any of the three interaction patterns. Need-related interactions occurred almost as frequently as procedural/task-oriented interaction, accounting for fifty-nine out of one hundred and thirty-five interactions. As in the presentation of the procedural/task-oriented pattern, communication behaviors and techniques are organized into nurses' verbal behavior, non-verbal behavior and the patients' non-verbal behavior. Then, examples of total need-related interactions are presented to illustrate how the behaviors work together to form the interaction pattern.

The nurses' verbal behavior focused on three general areas: need identification, need clarification and need resolution. A need-related inquiry (NRI) was a category generated that encompassed a variety of behaviors whose aim was need identification. A need-related inquiry could be general or very specific, depending on the situation. Nurses frequently based a need-related inquiry on their anticipation of patient needs. This type of need-related inquiry occurred at junctures in the daily routine; for example, before or after a procedure like chest tube removal or getting the patient out of bed, or just before the nurse would leave the patient area or immediately upon her return. Need-related

inquiries based on anticipation of patient needs took the form of general inquiries or utilized a grocery-list technique; the nurse would run through a list of possible needs, with the patient responding in a yes/no fashion. An example of a general need-related inquiry would be, "How are you doing? Do you need anything?" Prior to leaving the area, nurse one asked her patient if she was warm enough or needed any kleenex, exemplifying the anticipation of several possible needs.

Need-related inquiries were also based on a nursing assessment of a change in patient status requiring intervention. These ranged from changes in physiological status to changes in position or body language. A frequent example of an inquiry based on physiological signs was the identification of the need for suctioning. The patient would cough, turn red or grimace, and the nurse would interpret this behavior as indicating a need for suctioning. Need-related inquiries of this type were quite specific and tended to be followed up immediately by action. Logically, need-related inquiries based on nursing assessment were only evident when the nurse was in the vicinity of the patient. Need-related inquiries also were observed as a response to a signal for attention from the patient.

Once a patient need had been identified, nurses utilized several verbal techniques for need clarification. These clarification techniques were not unique to need-related interaction, but occurred most frequently in this interaction pattern. The most important clarification technique utilized was titled verbal interpretation of patient

messages. This technique appeared in the majority of nurse-patient interactions and simply consisted of the nurse repeating, out loud, her interpretation of what the patient was trying to say. At times, when analyzing the study of transcripts, it appeared that two people were talking. A brief example of verbal interpretation of patient messages follows:

Example 13: Signal for Attention/General NRI/Verbal Interpretation of Patient Message/Identification (ID) Problem Area

V	NV-N	NV-P
	At foot of bed, straightening bed-clothes. Sees patient's hand. Moves to left side of bed.	Lifts right arm up in air, waving back and forth. Looking at nurse.
What do you need?		Gestures, pointing up into air, mouthing some words.
You want the lights off?		Shakes head "no".
You want the HOB up?		Nods "Yes".
Okay.		

Verbal interpretation of patient messages was very effective in ensuring that the nurse understood the communicate and allowed for timely correction of misinterpretations before any action had been taken. One nurse-patient pair utilized verbal interpretation of patient messages less frequently than the other subject pairs. The patient of this pair had been intubated for 83 days and was easy to lip-read. In addition, she concomitantly utilized several modes of communication (verbal

responses, gestures, eye contact, gaze and/or facial expression); perhaps this accounted for the difference.

Another verbal technique utilized for clarification by nurses was altering questions to allow a yes or no response from the patient. An example of this is "How's that jello taste?" altered to "Can you taste it?" In this way, the nurses were able to focus the interaction more and ensure understandability of the responses.

Other, less frequently occurring clarification techniques included repeating or rephrasing a question if the initial question elicited no response, giving the patient two clear choices and then allowing them to choose and finally, a general request for clarification; for example, "What did you say?" or "I can't understand you."

If other clarification techniques were unsuccessful in identifying the patient's need, the nurse offered an alternate mode of communication. The two alternate modes of communication observed were writing a message on a clipboard or tracing letters out with a finger in the air. All instances observed were initiated by a nurse after other techniques had failed, including those discussed previously and those in the patient section to follow.

Verbal techniques utilized in need resolution by the nurses included suggestions, explanations and requests for feedback from the patients. Suggestions were made by the nurse of appropriate actions for need resolution; for example, "Close your eyes and take a snooze." The explanations used in need resolution varied. Some took the form of

an acknowledgement of the need with an explanation of a delay in action; "I can't get you back (to bed) yet. I have a few things I have to do here first." Other explanations detailed the proposed plan of action; "I'll see if I can give you some tylenol to help your headache." Others outlined previous interventions that were aimed at meeting the expressed need; "The medicine I gave you earlier should take care of it."

Requests for feedback were utilized to assess whether the intervention had met the patient's need; for example, "Did your headache get better?" During the intervention, the nurse might also request feedback; "Am I getting the right spot?"

The nurses' non-verbal behavior in the need-related interaction pattern was divided into indirect approach and direct approach, as in procedural interaction. Except for a few instances, there was no clear pattern to the nurses' non-verbal behavior. Direct approach was always utilized when responding to a signal for attention from the patient and was also evident in most instances when the nurse was requesting feedback from the patient. Other than these two areas, the non-verbal behaviors recorded could not be associated with other verbal techniques or situations.

The patient's communication behaviors in the need-related interaction pattern were the most interesting and complex patient behaviors observed in the study. In addition to the techniques mentioned for the procedural/task-oriented pattern, (acknowledgement, positive/negative responses, distancing), patients utilized several new techniques

to express their needs. These techniques were titled signals for attention, identification of the problem area and "verbal" responses.

Signals for attention were non-verbal messages designed to attract the nurse to the patient area or gain her attention if she was already in close proximity. An arm gesture and/or attempting to make eye contact with the nurse were the most frequent signals utilized. If no response was obtained, the signal(s) might be repeated or were escalated to include some type of noise-making (rattling bed-sides or tapping on arm of chair). Usually, the entire signal complex was repeated until some response was obtained as in the following example of patient's non-verbal behavior: raises arm, lifts head to look at station (where her nurse is sitting)...repeats same motion several times...looks into station and rattles siderail...looks into station, raises right arm up in air and rattles siderail. It was interesting to note that even though the noise-making signals for attention usually produced immediate results, patients would still utilize gaze and gesture prior to creating a disturbance. Only one example was recorded when a signal for attention that was repeated several times, went unnoticed. In this instance, the patient then began to remove her gown, which she did receive recognition for from another nurse. She then closed her eyes and appeared to withdraw for approximately 10 minutes after which she reinstated her signalling efforts which were finally successful.

Once either the nurse or the patient had initiated the need-related interaction with a need-related inquiry or a signal for attention,

the patients used a very effective strategy for narrowing the list of possible needs to the one area of concern to them. The technique was titled identification of the problem area. Through gestures, gaze or facial expression, patients were able to focus the nurses' attention upon a portion of the body or an object in the environment that was involved in their need. One patient indicated that his mouth needed suctioning in the following way: cheeks bulged up, opened eyes briefly, stuck tongue out. Identification of the problem area combined with the nurses' verbal interpretation of patient messages created a very effective, efficient method of precisely pinpointing what the patient requirement was.

At times, patients would also utilize "verbal" responses in need-related interaction. In a "verbal" response, the patient mouthed the words in a normal fashion and depended on the nurse to lip-read the message. "Verbal" responses were never used alone, but in combination with gestures and/or gaze in need clarification: mouths "bedpan", eye contact, gestures to bottom. "Verbal" responses were also used to expand on a positive or negative response.

Positive/negative responses, communicated primarily with head movement and facial expression were utilized in responding to the nurses' attempts at need clarification and resolution. Distancing, defined under procedural/task interaction, also occurred in need-related interaction. It was evident when the patient disagreed with the plan of need resolution proposed by the nurse and could not change it.

The following group of examples are designed to illustrate how the above communication techniques appear in the interaction pattern. Each example is preceded by a brief explanation.

Examples 14 and 15 illustrate need-related interaction that is initiated by the nurse with a need-related inquiry based on her anticipation of patient needs. In example 14, the patient had just gotten out of bed to a chair. The nurse utilized direct approach and verbal interpretation of patient messages in addition to suggesting several possible alternatives.

Example 14: Anticipated NRI/Verbal Interpretation of Patient Message/
Direct Approach/Positive/Negative Responses/"Verbal"
Responses

V	NV-N	NV-P
Is there anything I can get you to look at...a newspaper, the Free Press, anything like that?	Leans over -- 12 inches from face	Moving mouth, shakes head "no."
No? You don't know anybody in ----- ?		Moving mouth (yes).
How about a radio. You would like a radio. Okay, good.	Moves to bedside stand.	Nods head "yes."

Example 15 illustrates a general need-related inquiry, then the nurse anticipates a more specific need, fatigue. Her proposed need resolution is met with a negative response and distancing from the patient.

Example 15: Anticipated NRI/Suggested Need Resolution/ Responses/
Distancing

V	NV-N	NV-P
How are you doing? Getting tired? Well, take a snooze. Close your eyes and take a snooze. No? How Come? Uncomfortable?	N1 returns to bedside.	(coughing) Nods "Yes." Shakes head "no." No response, looks away, closes eyes.

In example 16, the nurse, upon returning to the patient area, utilizes a general need-related inquiry. The patient makes a "verbal" response which is unsuccessfully interpreted by the nurse. An alternate mode of communication is offered, and the message is successfully transmitted. After acting to resolve the need, the nurse requests feedback on the success of the intervention.

Example 16: Anticipated NRI/Verbal Response/Offer Alternative Mode of
Communication/Explanation/Positive-Negative Responses/
Request for Feedback

V	NV-N	NV-P
How are you feeling? Dizzy? Still the HA?		Mouth response Shakes head "no."
(Reading) "You want to get back to bed. Okay. I haven't forgotten you. Let me just get up.	Hands patient clipboard	Writes. Nods "yes."
Are you warm enough?	[Gets patient back to bed.] Setting up A-line.	Nods.

It must feel good to
lie back down, huh?
It feels good.

Nods "yes."

In the next three examples, the need-related interaction is initiated by the nurse based on her assessment of patient status. In all three examples, the nurse was in close proximity to the patient prior to the interaction.

Example 17: NRI (Assessment)/Need Resolution/Request for Feedback

V	NV-N (at bedside bathing patient)	NV-P
Have you got something to spit out?	Suctions mouth.	Blinks, cheeks bulge up, opens eyes briefly, sticks tongue out. Nods.
Okay? Got some more?	(Again)	Closes eyes, turns head toward N2.

In example 18, the nurse utilized explanations of the proposed interventions and a request for feedback in the need-resolution phase.

Example 18: NRI (Assessment)/Explanation/Request for Feedback/"Verbal" Response/Positive Response

V	NV-N	NV-P
Too hot? (Are you) hot?	N3 working at right bedside.	Mopping forehead with Kleenex. Mouth-ing words.
I'll open a few windows. It gets hot in here.	Leaves/returns to left bedside with syringe.	

You know what I'll do? I'll have you take your slippers off and I'll give you something to put under your feet in case that might be getting you too hot, too.

Takes slippers off.
Goes to get towel.
Puts under feet.

Okay. Is that better? Yes?

Nods, eye contact.

Example 19: NRI (Assessment)/Request for Feedback/Positive Response

V	NV-N	NV-P
Need to be suctioned, hon?	Moves to set up equipment.	Patient begins to cough, leaning forward in chair with a red face.
	Suctions patient/ talking to nurse at next bed.	
How are you doing? Is that better? Yes?	Walks over to front of patient and talks to her en face about 3 feet away.	Nods with eye contact

The following four examples are need-related interactions that were initiated by patients utilizing signals for attention. Each example also illustrates the use of identification of the problem area and direct approach. In example 21, the need resolution phase consisted of an explanation of previous action that should meet the expressed need.

Example 20: Signal for Attention/General NRI/Direct Approach/ID Problem Area/Verbal Interpretation of Patient Message/Explanation

V	NV-N	NV-P
What's the matter?	Nurse approaches left side of bed, leans over patient.	Raises arm and waves it. Gestures to forehead.
You have a headache?		Closes eyes.
The medicine I gave you should take care of it.		

Example 21 illustrates a prolonged signal for attention and the need identification phase of the interaction.

Example 21: Signal for Attention/General NRI/Direct Approach/ID Problem Area/Verbal Interpretation of Patient Message/Positive Response

V	NV-N	NV-P
	N1 in station, facing away from patient, talking with secretary and writing a flowsheet.	Begins to cough, opens eyes, looks into station. Continues to look into station. Right hand to side rail -- rattles. Head up -- looks into station. Raises right arm in air.
What do you need?	N1 gets up, moves to left side of bed, leans toward patient, looks at her, touches left arm.	Rattles side rail.
You're cold now?		Pulls at sheets. Nods
And you just felt like banging? Okay.	(covers patient) Moves away to check IV's and respirator.	Looks up at N1, shakes head "no."

In example 22, the signal for attention was eye contact between the nurse and patient, and the need resolution proposed by the nurse was

acknowledgement of the need and explanation of why intervention must be delayed.

Example 22: Signal for Attention/ID Problem Area/Explanation/
Positive Response

V	NV-N	NV-P
	Eye contact with patient (while at adjacent bedside)	Looks at N4...gestures to bed.
Are you okay for a few minutes while I get her back to bed? (referring to her other patient)		Nods, watches happenings in W1.

Example 23 illustrates the process of need identification, clarification and resolution over a period of time, illustrating many of the communication techniques discussed previously.

Example 23: ID Problem Area/Verbal Interpretation Patient Message/
Direct Approach/Offer Alt. Mode of Communication/Explanation/Request for Feedback

V	NV-N	NV-P
Want to sit in the chair? No? You should.	Looks up from flow sheet. Moves to left side of bed.	Shakes head "no." Holding head with right arm.
You got a headache...I don't think you'll have less of a headache if you don't sit in the chair.	Leans over patient-10" away	Moving lips, eye contact.
	Shakes head "no", gets clipboard from FOB and hands to patient, then gets chair ready for	(writing) Let's clipboard fall to lap

patient.

Takes clipboard
and reads.

Let's see. It's
because of that
gas smell. I
can't smell any
gas. Oh.

Watches N3 reading,
nods. Gestures
with right hand to
tubing.

...I'll see if I
can get you some
tylenol to help
your headache.

(few minutes later)
I'm calling your
doctor to get per-
mission to give you
a couple of tylenol.

Leaves bedside to
answer phone.

(10 minutes later)
Well, I crunched up
tylenol, and it's
in here. Two ty-
lenols. I'm going
to put it in your
stomach.

(Nods)

(1 hour later)
Did your headache
get better? Yes,
a little bit.

(working at bedside
with respirator)

Nods "Yes", mouths
some words.

The need-related interaction pattern was characterized by a more equal role for nurses and patients in the communication process. Patients, involved primarily in the need identification phase, utilized signals for attention to initiate the interaction. Identification of the problem area and "verbal" responses were frequently used in need identification to identify problems. Clarification techniques included verbal interpretation of patient messages, altering questions to allow

a yes/no response and offering an alternate mode of communication. Suggestions, explanations and requests for feedback from patients were used in need resolution.

Social/Personal Interaction. Social/Personal interaction was communication whose purpose was normalization or defusing of an embarrassing situation. Nurses always initiated this interaction pattern, and the level of patient participation fell between the very passive role in procedural/task-oriented interaction and the most participative role in need-related interaction. There were a total of eleven examples of social/personal interaction, an average of two to three per subject pair. Two nurse-patient pairs, however, had no examples of social/casual interaction: pairs two and six. The patient in pair two had only been intubated for three days and was judged somewhat unstable by the charge nurse. Nurse two was an LPN and was caring for two patients. In pair six, which was also a two-patient assignment, the nurse was an ADN. It is unclear whether patient acuity, nurse preparation or the workload accounted for the differences observed.

The nurses' verbal behaviors that characterized the social-personal interaction were varied. General inquiries or comments about daily unit routines, family or home routines formed one category of verbal behavior. Sharing of similarities between the nurse and the patient also were observed in this communication pattern. Nurses also used humor about embarrassing or potentially fearful events, like alarms ringing or the patient passing flatus.

The nurses' non-verbal behavior associated with the social-personal interaction was quite characteristic. The nurse was always already in close proximity to the patient either performing a routine task, such as changing bed linen, writing on the flowsheet, or responding to a patient need.

The most interesting aspect of the patient's non-verbal behavior in this interaction pattern was the expression of positive feelings involved...smiling or laughing. Besides the humor, the patient responses were similar to those already mentioned, including acknowledgement, positive/negative responses and "verbal" responses.

In example 25, social/personal interaction is illustrated. The nurse, while in close proximity to the patient, made general inquiries about unit routines and the patient's family. The interaction terminated when the task that was keeping the nurse in the vicinity was completed.

Example 25: General Inquiry/"Verbal" Response/Positive-Negative Responses

V	NV-N	NV-P
	Nurse changing bed linen.	Looks at station. Draws footstool away from bed so nurse can change bed.
Do they do any exercises when you get OOB or do you just get zipped out?		Mouths a few words.

They do exercises?
 You feel like you're
 getting stronger?
 (Laughs) No way, huh?

Shakes head "no."

Coughs, glances at
 investigator, floor.

Where's all your
 visitors today?
 Daughter-in-law
 working today?
 Must be busy.
 Are your sons
 coming in today?
 You have two sons
 or three?...or was
 that two and a
 half? How many
 grandchildren?
 None?!

Nods. Mouths words
 in response to ques-
 tions, coughs.

Finishes making bed
 and starts to check
 respirator. Returns
 to foot of bed and
 talks with M.D.

Watching nurse and
 M.D.

Example 26 illustrates the use of sharing similarities and also
 commenting on the unit routine.

Example 26:

V
 It's nice of you
 to let her watch
 us. What did you
 say? "I know it."
 That's like when I
 tell my niece she's
 pretty. She says
 "I know it."

NV-N
 (At right bedside,
 discontinuing a
 Heparin lock)

NV-P
 Nods, mouths some
 words

In example 27, the use of humor is utilized in the potentially fearful situation of hearing an alarm.

Example 27:

V	NV-N	NV-P
Are you whistling at us...? (Laughs)	(working at adjacent bedside) Reaches over patient to turn off alarm.	(coughs; cardiac alarm goes off) Looks up, watches N4.
	Leaves room.	

To summarize, social/personal interaction occurred when the nurse was already in the patient area, covered a variety of subjects from daily routines and family to life in the unit and contained an element of humor. Patient participation was varied, but did generally include some more complex "verbal" responses.

Summary

Nurse-patient communication in the critical care areas observed was characterized by a very passive role for the patient and a very high level of control for the nurse over communication content and process. In this overview of communication and how it operates with intubated patients, three communication patterns were identified. Procedural/task-oriented interaction, need-related interaction and social/personal interaction composed all of the communication observed. Verbal and non-verbal behaviors that characterized each interaction were presented.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

Chapter 5 presents the conclusions together with a discussion of the limitations of the study. Recommendations for future study are described, and implications for nursing practice are discussed.

The purpose of the study was to explore and describe the process and content of communication between nurses and intubated patients in the critical care setting. Overall, the nurse-patient communication was characterized by a very active nurse role and a very passive patient role, observable both in communication content and process. The content of the communication fell into three major categories: need-related, social/personal and procedural/task-oriented interaction patterns. Procedural/task-oriented and social/personal interactions were initiated solely by the nurses. In addition, more than half of the need-related interactions observed were also initiated by the nurse. The nurses, then, were primary in deciding what would be communicated and when. The number of procedural/task-oriented interactions was approximately equal to the number of need-related interactions for the majority of subject pairs. However, two pairs had twice as many procedural/task-oriented interactions as need-related interactions. Several factors were identified that may account for the differences. In the first pair, the patient had only been intubated for a few days, and his nurse was an LPN.

Perhaps his greater acuity, or decreased familiarity with the unit routine increased his overall passivity. A difference in educational preparation for the nurse may have also played a role. In the other subject pair, proximity appeared to be the factor that accounted for the difference. The patient was at one end of a large room, not visible from the nurses' station. Three nurses were on duty, with only one patient in the unit, and the nurses were working on inservice projects at the station. For certain periods of time, the nurses were away from the bedside, unavailable to the patient. Educational preparation, proximity, patient acuity or length of intubation may be factors that influence communication content.

The study results also indicated that a large proportion of nurse-patient communication was focused on procedures, tasks and the patient's physical needs. Social/personal interactions were rare and occurred primarily when nurses were already in the patient's vicinity. It was clear from the data analyzed that social/personal communication was not a priority in nurse-patient interactions in the critical care setting.

The process of communication was also largely under the control of the nurses. Patient responses throughout all three interaction patterns were most frequently either simple acknowledgement or a yes/no response. Negative responses to the nurses' proposed plans or procedures were at times accompanied by distancing: withdrawal and failure

utilize communication to attempt to negotiate or alter the proposal. Benoliel and Van de Velde (1975) described the passivity of critical care patients: "There is an aura of depression about them, indicated by apathy, a tendency to sigh and little verbalization." Patient passivity left the nurses with the responsibility for facilitating and maintaining communication. A number of nursing actions were identified whose overall goal was to increase patient participation in the communication process. Verbal interpretation of patient messages enabled the patient to immediately correct any misinterpretation. Offering alternate modes of communication, phrasing questions to allow a yes/no response and offering two clear choices were methods utilized to facilitate patient communication. Another technique nurses implemented to facilitate patient participation in communication was requesting feedback from the patients on proposed plans, procedures or interventions. The importance of a more collaborative role for critical care patients was emphasized by Lawless (1975) and Obier and Haywood (1973). The powerlessness that results from the pain, isolation, fear and unfamiliarity of the setting can be decreased by increasing patient participation in communication and, hopefully, expand his/her feelings of control.

Although nurses were largely responsible for the process of communication in the critical care setting, the patients utilized one very effective technique to aid in message accuracy: identification of the problem area. Through gestures and gaze, patients were able

to narrow down the field of possible problems, enabling the nurses to more quickly and easily interpret their message.

Limitations

The following limitations are recognized by the investigator:

1. Data collection and analysis was completed prior to saturation of all categories. Thus, the possibility of other categories and additional cues for those presented remains.
2. The results of the study are not generalizable to other critical care nurses and patients due to the small sample size and the fact that all the data were gathered at one institution. The variation in the educational background of the nurses in the sample also makes it difficult to generalize the results to any particular group of nurses. The variations noted in the data could be due to differences in education or to a host of other factors.
3. The data collection technique of note-taking as opposed to videotaping may have resulted in the loss of depth and information on non-verbal communication behavior.
4. Patients and nurses who consented to participate in the study may have differed from those who declined as both subject groups were told that the study focused on communication.

Implications For Nursing

The major implications for nursing practice are increased understanding of the nurse and intubated patient roles in communication and an indication of some techniques that are utilized for facilitating the communication process. The passive role that was exhibited by the patient subjects increases the responsibility of nurses in communicating with intubated patients. Patients did not seek out information or initiate many interactions, and so what information they did receive was determined by nursing decisions. The study results indicate that the nurses are primary in initiating and facilitating communication with intubated patients. In the practice setting, then, nurses need to tailor communication decisions to the individual patients. An understanding of the control and responsibility that nurses have for communication with intubated patients in the critical care setting should increase our sensitivity to aiding these patients in expressing their needs and concerns.

Techniques that were identified as helpful in facilitating communication with intubated patients included verbal interpretation of patient messages, identification of the problem area and offering alternative modes of communication. Knowledge of these techniques could aid nurses in critical care areas by identifying what they may already be doing or offering them some alternatives to implement when problems in communication arise.

Recommendations For Further Study

Communication with intubated patients in the critical care setting is an area in need of further study. The types of interaction patterns that emerged in the present research need further definition and development. Some research has been done on procedural interaction and the types of communication techniques that are most effective in reducing patient anxiety during procedures (Myers, 1964, Lindeman and Aerman, 1971, Johnson, 1972, Schmitt and Woodridge, 1973 and Hartfield et al., 1982). Need-related interaction and social/casual interaction could benefit from similar research.

The link between communication and patient outcomes remains tenuous. Nurses need to examine the influence of more participative communication on patient outcome variables. For example, in the critical care setting, do pre-procedural preparation, patient involvement in need identification and resolution or social/casual interaction result in patient benefits? Is an isolating atmosphere more appropriate? Does a patient's need for more communicative control change over the course of the intensive care stay? What cues indicate that patients are ready to resume more control in communication and in other aspects of self care?

A third area in need of more nursing research is the process of making communication decisions. What determines the type of frequency of interactions the nurse initiates? What factors influence this? How can these communication decisions be modified?

Finally, the social/personal communication need of intubated patients require further research. Are there other professionals, or

individuals; for example social workers, family and clergy, who are meeting these needs in the critical care area? Is nursing's role in social/personal communication one of facilitation or direct participation?

Summary

In summary, the major findings of the study involved the extent of nursing control over communication with intubated patients and the overall emphasis on procedures, tasks and physical needs with little social/personal communication occurring. Both the content and process of the communication observed was primarily determined by the nurse, who instituted various techniques aimed at increasing patient involvement in the interaction. The limitations of the study, mainly the small sample size and lack of saturation were mentioned. Implications for nursing practice, primarily increasing awareness levels and recommendation for further research were presented.

APPENDIX A
SUMMARY OF RESEARCH PROPOSAL

APPENDIX A
NURSING STUDIES COMMITTEE
SUMMARY OF RESEARCH PROPOSAL*

1. Investigator's name Margaret P. Gagne
2. Title of proposed research "Patterns of Communication
Between Nurses and Intubated Patients"
3. Associates _____
Consultants Dr. Carolyn Murdaugh, thesis chairman
Sponsors _____
Funding source _____
4. Describe the purposes of the proposed research, the methods to be used and plans for reporting the results.

This study will examine the communication process as it operates between nurses and intubated patients. It is hoped that by identification of specific variables that affect communication in the ICU setting and by delineating the patterns of communication that occur, the effectiveness of communication in terms of patient outcomes could eventually be evaluated.

The lack of research in this area dictates an exploratory approach. Specific methods to be used in data collection include chart audit, use of flowsheet, unstructured observation of the nurse-patient dyad and tape recordings of verbal communication.

The results of this research will be reported in a master's thesis submitted to the University of Arizona College of Nursing. A summary of the findings will also be available to any of the participants upon completion of the study.

* To be filled in by the investigator. Submit along with the proposal for committee review.

5. Criteria for selecting subjects and methods for recruiting them. Specify inclusion and exclusion criteria.

Selection of patient-subjects will be based on the following criteria: 1) age 18 or older, 2) English-speaking, 3) Absence of sensory losses, 4) Is not a neurological or neurosurgical patient, 5) No immediate plan for extubation, 6) Responsive to verbal stimuli evidenced by grasp and eye closure to verbal command, 7) Identification by the head nurse/charge nurse as being appropriate and stable enough for entry into study, 9) Consent to participate as detailed below.

6. Describe how consent will be obtained. Enclose copies of the consent form(s). Explain how confidentiality will be maintained.

After identification of appropriate study subjects has been made by the head nurse/charge nurse in conjunction with the investigator, the potential subjects will be approached by the investigator. A brief verbal description of the study, introducing the investigator and the purpose of the study will be given to see if they are interested in participating. If so, the Lay Summary and Consent Form will be read to them (unless they prefer to read it themselves). Agreement to participate in the study will be indicated by signing the consent form.

The names of study participants will be known only to the primary investigator. All information will be kept confidential and reported using only an identification number.

guynup: 518-846-7976

APPENDIX B
PATIENT INFORMATION SHEET

PATIENT INFORMATION SHEET

Medical Record #: Age:
 Diagnosis: Sex:
 Date of Admission: Education:
 Date of Surgery: Occupation
 Date & Time of Intubation: English: primary/
 Secondary lang.
 Reason for Intubation: Corrective Lenses:
 Projected Extubation: Hearing Aid:
 Previous Intubation hx:
 Elective/Emergent Intubation:
 Pre-op/Pre-procedural Teaching:

Medications:

NameDosesLast Dose Received

Pertinent Lab Values:

Vital Signs:

Other

APPENDIX C
NURSE INFORMATION SHEET

Nurse Information Sheet

No. years critical care experience

Age

No. years in SCU or RCU

Sex

Race

Education
Level

APPENDIX D
DATA COLLECTION FLOWSHEET

Patient ID#:
 Nurse ID#:
 Date:

Start Time:
 Stop time:

Initial Descriptions:

Patient-(location, position in bed, facial expression, mental status)	Nurse-(location, # of patients, facial expression, etc.)	Environment-(patient surroundings, light level, noise level, curtains, location of investigator, etc.)

Time	Verbal (first & last words in phrase only)	Nurse	Non-Verbal	Patient	Environmental Changes

APPENDIX E
APPROVAL/UNIVERSITY of ARIZONA
RESEARCH COMMITTEE

THE UNIVERSITY OF ARIZONA COLLEGE OF NURSING

MEMORANDUM

TO: Margaret P. Gagne
78-B North Prospect St.
Burlington, Vermont 05401

FROM: Ada Sue Hinshaw, R.N., Ph.D. *ASH/aw*
Director of Research

Katherine J. Young, R.N., Ph.D.
Chairman, Research Committee

DATE: August 9, 1983

RE: Human Subjects Review: Patterns of Communication Between Nurses & Intubated
Patients

Your project has been reviewed and approved as exempt from University review by the College of Nursing Ethical Review Sub-committee of the Research Committee, and the Director of Research. A consent form with subject signature is not required for projects exempt from full University review. Please use only a disclaimer format for subjects to read before giving their oral consent to the research. The Human Subjects Project Approval Form is filed in the office of the Director of Research, if you need access to it.

We wish you a valuable and stimulating experience with your research.

ASH:des
4/83

APPENDIX F
APPROVAL/UNIVERSITY of VERMONT
COMMITTEE ON HUMAN RESEARCH

84-55

UNIVERSITY OF VERMONT PROTECTION OF HUMAN SUBJECTS ASSURANCE FORM	Research is: IN-HOUSE <input checked="" type="checkbox"/> UNFUNDED <input type="checkbox"/> FUNDED <input type="checkbox"/> SPONSORING AGENCY _____
Original Form <input checked="" type="checkbox"/> Followup <input type="checkbox"/> Revision <input type="checkbox"/>	New <input checked="" type="checkbox"/> Renewal <input type="checkbox"/> Con't. <input type="checkbox"/> Annual Rev. <input type="checkbox"/>

STATEMENT OF PRINCIPLES: The University of Vermont has adopted on an institution-wide basis the basic principles regarding experimentation on humans which are stated in the Nuremberg Code and the Declaration of Helsinki.

The University of Vermont has an approved General Assurance (#G0194) on file with the Department of Health and Human Services.

1. TITLE OF PROPOSAL

Patterns of Communication Between Nurses and Intubated Patients

2. PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR/FELLOW

DEPARTMENT/TELEPHONE

Margaret Gagne

Nursing

3. HUMAN SUBJECTS WOULD BE INVOLVED IN THIS PROJECT AS: NONE OF THE FOLLOWING , OR INCLUDING: MINORS , FETUSES , PREGNANT WOMEN , MENTALLY RETARDED , MENTALLY DISABLED , PRISONERS , PATHOLOGICAL SPECIMENS (specify) _____
OTHER SPECIAL CATEGORY (specify) _____

4. CERTIFICATION OF REVIEW

- A. The signer certifies that all proposed activities that would involve human subjects have been approved by one of the University's Institutional Review Boards in a convened meeting on the date of _____, in accordance with the Code of Federal Regulations on the Protection of Human Subjects (45 CFR 46). This certification included, when applicable, requirements for certifying FDA status for each investigational new drug or device to be used.
- B. This project has been reviewed and approved on the date of 5-24-84, in accordance with the expedited review procedure authorized by 45 CFR 46 and University guidelines.
- C. Other _____

THE INSTITUTIONAL REVIEW BOARD HAS DETERMINED, AND THE INSTITUTIONAL OFFICIAL SIGNING BELOW CONCURS THAT:

HUMAN SUBJECTS WILL NOT BE AT RISK HUMAN SUBJECTS WILL BE AT RISK (Minimal)

5. INVESTIGATIONAL NEW DRUG CERTIFICATION - See Reverse Side of Form

6. COOPERATING INSTITUTIONS CERTIFICATION - See Reverse Side of Form

7. TITLE OF INSTITUTIONAL OFFICIAL Dr. Miles Hacker, Chairman, Committee on Human Research, Medical Sciences	TELEPHONE NUMBER 656-4067
SIGNATURE OF INSTITUTIONAL OFFICIAL <i>Miles Hacker</i>	DATE 5/24/84

ORIGINAL SIGNED COPY OF THIS FORM SHOULD BE SUBMITTED TO THE FUNDING AGENCY

5. INVESTIGATIONAL NEW DRUG CERTIFICATION

To certify compliance with FDA requirements for proposed use of investigational new drugs in addition to certification of Institutional Review Board approval, the following report format should be used for each IND: (attach additional IND certifications as necessary).

___ IND form filed: () FDA 1571 () FDA 1572 () FDA 1573

___ Name of IND and Sponsor _____

___ Date of 30-day expiration or FDA waiver _____

___ FDA restriction _____

___ Signature of Investigator _____ Date _____

6. COOPERATING INSTITUTIONS - ADDITIONAL REPORTING REQUIREMENT

Use following report format for each institution other than grantee or contracting institution with responsibility for human subjects participation in this activity. (Attach additional report sheets as necessary).

INSTITUTIONAL AUTHORIZATION FOR ACCESS TO SUBJECTS

Subjects: Status (Wards, Residents, Employees, Patients, Etc.) _____

Number _____ Age Range _____

Name of Official _____

Title _____ Telephone _____

Name & Address of Cooperating Institution _____

Official Signature _____

APPENDIX G
APPROVAL/MEDICAL CENTER HOSPITAL
OF VERMONT NURSING STUDIES COMMITTEE

MEDICAL CENTER HOSPITAL OF VERMONT

Pamela C. Noble-Ashikaga, RN, MS
Chairperson, Nursing Studies
Committee, Medical Center
Hospital of Vermont
Burlington, Vermont 05401
April 26, 1984

Ms. Margaret Gagne, RN
78B North Prospect St.
Burlington, Vt 05401

Dear Peg,

I am pleased to inform you that the MCHV Nursing Studies Committee unanimously passed your research thesis, "Patterns of Communication Between Nurses and Intubated Patients," for study at MCHV with a few alterations to the final proposal. These alterations include the following:

- (1) On page 38 of your proposal you will exclude #6 from your patient selection criteria;
Endotracheally intubated (via the oral, nasal or direct tracheal route) for at least 36 hours prior to entry into study;
- (2) On page 38 of your proposal, you will change #7 of your patient selection criteria to read,
No immediate plan for extubation for at least 24 hours after entry into study;
- (3) The patient information sheet referred to on page 42 of your proposal and in Appendix A will also include:
 - (a) English as the patient's primary or secondary language,
 - (b) The patient's history of intubation,
 - (c) If the intubation is an elective or emergency intubation, and
 - (d) If the patient has received any pre-operative or pre-procedural teaching prior to this intubation;
- (4) Incorporated into the anecdotal notes on page 42 of your proposal you will include:
 - (a) Time of day of the observations,
 - (b) Time recorded incrementally during the observation,
 - (c) Total length of time recorded for each observation, and
 - ((d) If the patient or nurse are wearing hearing aids or glasses;)

- (5) Please change the sentence about "a disclaimer" on page 45 to describe the lay summary and consent forms to be used and signed by both patients and nurses.

Could you please send me a copy of the proposal with these alterations. I would also like to know what happens with the Human Experimentation Committee. Please contact me when you are ready to start your pilot, so we can set a date to get together.

This is a well thought out study. I am looking forward to your results.

Yours truly,

Franklin P. White - M.D.

APPENDIX H
LAY SUMMARY AND CONSENT FORM

Lay Summary

I, Margaret Gagne, am conducting a research study entitled, "Patterns of Communication Between Nurses and Intubated Patients." The purpose of the study is to determine how nurses and patients communicate when the patient is unable to talk. The study will involve observation of nurses' and patients' communication during routine care, tape recordings of verbal communication and review of the patient chart and flow-sheet for background information. Participation time will be approximately two to four hours.

There will be no cost or known risk to you as a result of your participation. There are not direct benefits to you either. You may ask questions at any point during the study. You may withdraw from the study at any point in time and any notes or recordings made will be destroyed at that point. Your name will only be known to the primary investigator. All information will be kept confidential and reported using only an identification number. Data may be used for future publication. Participation in this study is strictly voluntary. Refusal to participate will in no way affect your care.

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