J. Goodlett McDaniel. DISSATISFACTION WITH TELEPHONE COMMUNICATIONS WITH PHYSICIANS AMONG NURSES IN TWO NURSING HOME SETTINGS. (Under the direction of Dr. Pauline Vincent) School of Nursing, December 1985.

The purposes of this study were 1) to determine the extent of nurse dissatisfaction with telephone communications to physicians in selected nursing home settings; and 2) to determine what factors are associated with dissatisfaction.

The data were collected over a three month period between August and December 1983. The sample consisted of 637 data slips of recorded telephone calls between physicians and licensed nursing staff of two long term care facilities in one town in central North Carolina.

Nurses were classified as dissatisfied with telephone calls to physicians 10% of the time. Further research is needed to quantify the relationship between problematic interactions and importance of interventions.

The hypotheses tested were related to the second purpose of this study and were as follows:

1) Nurses are more likely to be dissatisfied with telephone communications with physicians when no medical orders are generated than when medical orders are generated.

2) Nurse dissatisfaction with telephone communications with physicians is positively associated with the number of attempts made to reach the physician or his designate regarding a patient problem.

3) Nurse dissatisfaction with telephone communications with physicians occurs more frequently late at night than at other times.

4) Nurse dissatisfacton with telephone communications with physicians

will be greater when the calls are regarding administrative functions than when regarding patient problems.

The chi square test for independence was used to test each of the hypotheses. A .05 level of significance was used.

Hypotheses 1 and 2 were supported. Hypothesis 3 and 4 were not supported, however. Support for hypothesis 1 implies that nurses and physicians differ in deciding when medical orders are warranted. How physicians and nurses view patients has been discussed as a possible source for nurse dissatisfaction when no medical orders are generated. Those differences in views give rise to conflict when nurses do not get medical orders that they believe are needed. Inservice activities that allow nurses and physicians practice in resolving patient care problems through communicating differences in views could improve mutual understanding concerning medical orders.

An association between nurse dissatisfaction and number of attempts necessary to reach physicians regarding patient problems was a second finding of this research. Telephone access to physicians oncall for nursing home facilities is important to the outcome of the interaction between the physician and the nurse providing patient care.

The third hypothesis, which was not supported, was that nurse dissatisfaction with telephone communications with physicians occurs more frequently late at night than at other times. Nurses indicated less frequently that they were satisfied with calls when they were made late at night than at other times, but the difference was not statistically significant.

Hypothesis four, which was not supported, stated that nurse

dissatisfaction is associated with telephone communications regarding administrative functions. Nurses indicated that they were more dissatisfied with non-administrative calls than with administrative calls, and the difference was statistically significant, but in the opposite direction of the hypothesis.

This study was limited to two nursing homes in one state. Further study of dissatisfaction in other nursing home settings is needed in order to test the generalizability of these findings. It is not possible to determine if telephone data slips were completed for every telephone communication that was made during the study period. Further, all 637 data slips did not have complete information. In future studies a system for checking data slips for completeness and accuracy on a daily basis is indicated. Determining the reliability and validity of the research instrument is also needed.

# Dissatisfaction With Telephone Communications With Physicians Among Nurses In Two Nursing Home Settings

A Thesis Presented to the Faculty
of East Carolina University
School of Nursing

As Partial Fulfillment for The
Degree of Master of Science in Nursing
by James Goodlett McDaniel
December 1985

DISSATISFACTION WITH TELEPHONE COMMUNICATIONS

WITH PHYSICIANS AMONG NURSES IN TWO

NURSING HOME SETTINGS

by

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TABLE OF CONTENTS

# LIST OF TABLES

# CHAPTER I

## Introduction

Important decisions which have an impact on patient health, cost of care, transportation and hospitalization (Sloane, 1984) are made over the telephone in nursing homes. Telephone communications are important in most areas of nursing practice but play an even larger role in the management of nursing home patients. In a skilled nursing home facility, physicians are required to visit their patients once every 30 days and only once every 60 days in an intermediate care facility (North Carolina Department of Facility Services, 1982). Henderson and Knight (1978) stated that in nursing homes where physicians make only brief weekly or monthly visits, the nursing staff may assume much more decision-making responsibility than they would in most hospitals.

The extent and importance of telephone communications in nursing home care can be attributed to 4 major factors, according to Sloane (1984). These factors are: 1) nursing home patients have more medical problems than the general population and thus must be frequently monitored; 2) most nursing home patients have difficulty getting to their physicians' offices; 3) nursing home staff (nurses and nurses' aides) play the patient monitoring role that families do in the ambulatory setting; because these staff members have medical training, physicians tend to rely on their observations and judgments about a patient's needs and status; 4) physicians traditionally visit the nursing home infrequently (in contrast to visits to the hospital). Sloane stated that problematic telephone communications in nursing home settings can occur because of

physician frustration with these calls as well as nurse dissatisfaction with the interaction. Further, problematic telephone communications between nurses and physicians in nursing home settings can have an impact on the care of patients.

The problematic nature of communications and their effects on patient care in the hospital setting have been discussed by Christman (1965). He stated that hospital staff members are becoming keenly aware of difficulties in communications among themselves. Christman concluded from a number of articles on hospital workers and patient care that problematic communications of all descriptions serve to diminish the quality of patient care.

Nursing is described by McKay (1981) as based on a complex body of knowledge and skills that involve both independent and interdependent practice decisions. She stated that to the extent that patient care practice is done in interaction with others, total control over the practice by one individual or one occupation is not possible. McKay concluded that nurses rely on interdependent decision making with physicians to arrive at satisfactory solutions to patient care problems. This interdependent decision making often occurs as a result of telephone communications in the nursing home setting.

Telephone communications can lead to dissatisfaction with their outcome. Given that problematic communications can affect patient care, we need to know the extent of dissatisfaction regarding telephone communications to physicians and what factors are related to dissatisfaction. The purposes of this study were: 1) to determine the

extent of nurse dissatisfaction with physician telephone communications in selected nursing home settings; and 2) to determine which factors are associated with dissatisfaction among nurses regarding their telephone communications with physicians.

A conceptual framework for looking at how dissatisfaction with telephone communications can lead to problematic outcomes is based on communication theories. Lecky (1961) in his theory of self-consistency described the communication process as an attempt to reduce intrapersonal conflict or inconsistencies. Lecky stated that a person can move in only one direction at a time and can believe in only one thing at a time. Contradictions within the individual cause tension and discomfort. Tension and discomfort are counterproductive to the individual whose integrative forces seek to preserve unity. Ideas that are consistent with the stored past tend to be assimilated, while those that are inconsistent tend to be rejected. Dissatisfaction with telephone communications would result from being presented with ideas by the physician which are inconsistent with the nurse's cumulative knowledge of what patient care interventions are appropriate given the situation at hand. According to Lecky, forgetting is an attempt to preserve individual unity or cope with those inconsistent ideas.

Cognitive dissonance theory that was developed by Festinger (1957) suggests that an individual's dissatisfaction with communications can result from an unsuccessful attempt to reduce the discomfort experienced when confronted with information contrary to his own. Individuals maintain control by dictating what can enter their systems. Persons

experience tension if forced to act in a manner contrary to their inner programs. Festinger stated that incongruent beliefs and attitudes cannot be held simultaneously. Sources of tension or conflict as described by Lecky were developed by Festinger's theory. Festinger concluded that what is taken into the system may be affected by the relevance and importance of the data to the individual and the credibility attached to the person who might be giving dissonant information.

The process of problematic communications has been described by Ceccio (1982) as resulting from the nurse's inner conflict of being "mentally prepared" for one type of message and then having to receive another kind of message. Ceccio stated that effective communication is the cornerstone for all nursing activities. She identified common communication barriers as distractions, inadequate knowledge, poor planning and listening, differences in perceptions, emotions, personalities, frozen evaluations, and even language itself. Ceccio concluded that conflicts between a nurse's mental preparation for receiving messages, and the type of message received can result in problematic communications.

The characteristics of the communicator that help in understanding how messages may be handled differently by different individuals have been described by Harvey, Hunt, and Schroder (1973). They stated that problematic communications result from how "concrete" or "abstract" a person may be. Harvey identified 4 groups of people that range from System I "concrete" to System IV "abstract". System I concrete indidviduals are very intolerant of ambiguity and make up their minds

more completely based on less amounts of information. System IV abstract individuals are more open-minded, adaptable, flexible, and creative. Harvey's theory would explain problematic communications as resulting from conflicts between different types of communicators and the kinds of messages being communicated.

Another explanation has been presented regarding possible causes of problematic communications that are exaccerbated by telephone interactions. In his publication on human communications, Birdwhistle (1970) stated that paralinguistics (modification of language by sound, pitch, resonance, as well as accessory utterances and non-verbal cues) contributed up to 70% of the social meaning of conversation. Birdwhistle's theory would attribute dissatisfaction with communication to inadequate sensory information necessary to understanding.

A more specific description of how nurses and physicians may perpetuate problematic communications is offered by Baziak and Denton (1965). They concluded that health care workers' cultural and linguistic preconditioning cause physicians and nurses to focus on certain features of a patient's condition and to ignore others. Because many physicians view the patient as a "symptom vehicle" their linguistic and other behaviors reflect responses to symptoms or diseases, and not to people. Similarly, nurses tend to perceive patients as "order vehicles" upon which an order is to be carried out. Interpreting telephone communications using a cultural and linguistic preconditioning perspective aids in understanding how nurses and physicians focus on different manifestations of patients' conditions. Telephone communications between nurses and physicians

that result in tension, discomfort, and conflict as discussed by previous authors can be supported by the postulations of Baziak and Denton.

Based on the conceptual framework, it is possible to generate hypotheses related to nurses' dissatisfaction with telephone communications with physicians in nursing home settings. A nurse's "cultural and linguistic preconditioning" may be related to the nurse's dissatisfaction with telephone communications when orders are not generated. Baziak and Denton's (1965) conclusion that nurses view patients as "order vehicles" could be tested from these data.

Characteristics of the communicator can lead to dissatisfaction with regard to physician accessibility. System I concrete nurses are more intolerant of ambiguity with regard to contacting a physician concerning a patient. System IV abstract nurses may be less likely to become dissatisfied when doctors are not readily accessible (Harvey, Hunt, & Schroder, 1973). The relevance and importance of the information that the nurse is attempting to report could further affect the outcome of the interaction when the physician is not readily available (Festinger, 1957).

Three communication barriers as discussed by Ceccio (1982) are distractions, poor listening, and differences in perceptions. These might be related to nurses' dissatisfaction with telephone communications to physicians according to the time of day that the interaction occurs. It is hypothesized that late night calls would be more susceptable to these barriers and to the problems of nurses and physicians not being "mentally prepared" or having adequate

"sensory information" to communicate effectively.

It is hypothesized that dissatisfaction is related to whether the nurse considers the call to be administrative in nature rather than an emergency, somewhat urgent, or not urgent. Festinger (1957) concluded that what is taken into the nurse's system may be affected by the relevance and importance of the data to the individual. If nurses regard administrative calls as an inappropriate use of their time and skills then the hypothesis should be supported.

Statement of Hypotheses

1) Nurses are more likely to be dissatisfied with telephone communications to physicians when no medical orders are generated than when medical orders are generated.

2) Nurse dissatisfaction with telephone communications to physicians is positively associated with the number of attempts made to reach the physician or his designate.

3) Nurse dissatisfaction with telephone communications to physicians occurs more frequently late at night than at other times.

4) Nurse dissatisfacton with telephone communications to physicians will be greater when the calls are regarding administrative functions rather than patient problems.

Theoretical Definitions

1) Nurse- All licensed nurses employed to provide patient care.

2) Communication- Giving and receiving information.

3) Dissatisfaction- Ideas that are inconsistent with the stored past and that are a source of tension and conflict within the individual

(Lecky, 1961).

4) Administrative functions- Functions related to the operations of the agency, but not related to patient care.

If nurses have dissatisfaction with telephone communications with physicians patient care may suffer. An understanding of communication barriers and the need for interdependence in making patient care decisions has important implications for nursing practice in all settings. Further, the findings of this study could provide empirical support for sources of nurse dissatisfaction for use by nursing educators and inservice personnel. Providing educational experiences that give nurses and physicians opportunities to identify expected outcomes of telephone communications could result if supported by the study. Opportunities for nurses providing patient care in nursing home settings to practice more effective telephone communication techniques may be needed if the hypotheses are supported. Further, techniques for reducing nurse dissatisfaction with telephone communications could be identified.

# CHAPTER II

## Review of Literature

A review of literature revealed no studies that specifically addressed problematic nurse-physician telephone communications in nursing home settings. There are several studies reported in the literature that posed questions that are related to the research questions addressed in this report. Studies of the nurse-physician communication process; intrarole conflict among nurses, patients and physicians; telephone medicine and the physician; and physician attitudes toward nursing home patients have relevance to the question of nurse satisfaction with telephone communications with physicians. Further, a recent research effort into the use of the telephone in nursing home settings has been conducted and will be reported.

Isom (1965) studied the effects of communication between physicians and nurses in a hospital in North Carolina. The hospital had an all black patient population, as well as an all black nursing and physician staff. Using a questionnaire, Isom interviewed 26 registered nurses and 13 physicians to determine how information was exchanged between them. Several conclusions were drawn from the data. Both physicians and nurses felt that the usual methods of communication between them were casual conversations and doctor's order sheets; however they preferred communication through planned conferences rather than casual conversations. Generally, nurses wanted physicians to share information with them which the physicians had discussed with patients. Physicians stated that they should not necessarily share information with nurses that had been discussed with patients. Both nurses and physicians agreed that

information shared between them was important, and was important to the nurse in making decisions concerning patient care. Nurses felt that they needed more instructions from physicians concerning the patients' treatments than were being given by physicians. Physicians and nurses spent little time in face-to-face discussions of plans for improving patient care. Isom concluded that improved communications between physicians and nurses increases the understanding nurses have regarding physicians' goals of patient care, and therefore increases the ability of nurses to provide better nursing care.

In a study of communications between physicians and nurses in an intensive care unit, 36 house officers and 32 nurses responded to a questionnaire concerning areas of potential conflict in the decision-making process regarding patient care (Allen, Jackson, & Younger, 1980). The investigators concluded that conflict in communications was a result of nurses' perceptions that they were not involved in the decision-making process concerning patient care. Dissatisfaction with communications resulted from differing perceptions of roles by nurses and physicians. Observations of the patient from different role perceptions illuminated correspondingly different patient problems. Nurses identified patient care problems that were not viewed by physicians as having equal importance to the plan of care as were the problems identified by physicians.

A study on nursing decision making and role conflict was reported by Davis (1974). The purpose of the study was to determine if intrarole conflict existed among role reciprocals who worked on two psychiatric inpatient units of a university hospital. A questionnaire regarding

expectations about nurses' involvement in decision making on a psychiatric unit was given to 17 registered nurses, 16 other staff members, 12 patients, and 8 physicians who worked on the units. To measure how intrarole conflict was reflected in job satisfaction for registered nurses, the nurses responded to a measure of job satisfaction. Intrarole conflict was found between the nurse group and the physician group, and the nurse group and the patient group. The nurse group had the highest total mean expectancy score for involvement in decision making while the patient group had the lowest. Significant differences were found in expectation scores between nurse and physician groups in decisions about psychotherapy, physical care, ward milieu, and unit policies, but not about continuity of care.

In Europe, Denber (1976) studied the effects of conflict on patient behavior in a 70 bed rest home-type hospital converted to a psychiatric hospital in Europe. The study discussed the change from a quiet institutional setting to one where acute, active psychotic patients required rapid, intensive treatment. This change-over precipitated a clash between medical and nursing staffs. Analysis showed that differences of opinion between nurses and physicians regarding patient care had been present for some time. The overt disagreement led to patients' acting out, refusing further treatment, leaving without consent, relatives' complaints, and the locking of one of the wards. In spite of many conferences involving all staff members, the issues did not get resolved. The author concluded that the fundamental impediment seemed to be in the original concepts underlying the hospital's operations. These included physicians' controlling the care regimens of patients will little or no input

from nurses.

A body of literature related to the use of the telephone by physicians in dealing with patient care holds some information related to nurse -physician communication. Sloane et al. (1983) in a pilot study on decision making behaviors of primary care physicians over the telephone developed a scoring system to rate clinical and psychosocial data gathering, management, timing of events, and physicians' questioning patterns. Nine first year residents, 11 third year residents, and 8 practicing physicians were anonymously tested using a simulated patient care problem. Analysis of the data produced by the simulations suggested the following trends as physicians become more experienced: mean call length decreased; less time was spent on diagnosis; fewer diagnostic questions were asked; greater time was spent on management; and diagnostic reasoning became less empirical and more intuitive.

In a discussion of the telephone in medical practice, Curtis (1978) identified 4 areas requiring expertise for effective "telephone care". These were 1) accessibility, 2) diagnostic skill, 3) treatment, and 4) the ability to be understood. Curtis stated that it is the physician who is responsible for setting the tone of the encounter but that nurses often are better at telephone skills than are physicians. Curtis further concluded that physicians often "talked down" to residents and interns and that poor telephone skills can seriously "jeapordize" physician-patient relationships.

The findings of a study of physicians' attitudes toward the ill aged in nursing homes suggested possible sources of nurses' dissatisfaction with communications with physicians (Miller, Lowenstein, & Winston, 1976). A

survey of physicians in private practice was conducted in a medium-sized surburban city in the White Plains area of metropolitan New York. The purpose of the study was to determine whether physicians' attitudes toward the ill aged and nursing homes were predictors of the quality of medical care provided to nursing home patients.

Questionnaires were mailed to 302 practitioners, and brief telephone interviews were conducted with 26 of the respondents. Of the 28% who responded to the mailed questionnaires, 32 were psychiatrists, 15 were primary care physicians, and 8 were orthopedists.

Physicians indicated that they felt competent to manage the ill aged, although 50% had had no significant degree of exposure to geriatric medicine in their medical education. Among the primary care group 70% had no exposure. Primary care and older physicians were more likely to treat patients in nursing homes than in hospitals. Almost 40% of the physicians surveyed viewed the nursing home as a "place to die". Further, although 85% of those responding to the survey indicated that physicians should be involved in the nursing home placement process, only 21% believed that they continued to be in charge of their patients after this type of placement. The authors concluded that there is "generalized disinterest in the care of ill aged patients in institutions" (Miller et al. 1976 p.22).

A study of nursing home patients and their care conducted by a research team from a local university of which the author was a member provided the data for the present study. The major purposes of this larger study were to: 1) gather preliminary epidemiologic data on telephone calls between nurses and physicians in selected nursing home settings; 2)

conduct a pilot study of a data collection methodology that may prove applicable to further studies; and 3) examine patterns in the data, and suggest areas in which telephone management skill training for nursing staff and physicians may be beneficial in improving either time management or patient care.

The study was conducted in two nursing homes in a university town in central North Carolina. Nursing home A accommodates 58 intermediate care patients. Nursing home B is a proprietary facility with 60 intermediate and 60 skilled beds. Both facilities served a predominantly geriatric population. All patients at both facilities had personal physicians who were either private practitioners or were on a local medical school faculty. Each nursing home had one part-time medical director who visited once a week.

A data collection form to record telephone encounters was designed for the study in consultation with nursing directors and administrators from the nursing homes (Appendix A). The form was prepared in duplicate using carbon-free paper. The top copy of the form was collected for study purposes and the second copy became part of the medical record. A portion of the data collection form provided space for a nursing note to be written. A separate section was utilized to record telephone orders. The data collection form was the only method for recording telephone orders and generating nurse documentation during the study period.
The data slips were numbered consecutively.

Training sessions on the study design and how to complete the data collection forms were provided to all registered and licensed practical nurses at both nursing homes prior to the beginning of the study. All

nurses who began working during the study period received individual tutorial sessions. Completed data collection forms were collected and reviewed for omissions and incomplete data by a project assistant. Missing data were requested from the nurse who signed the form. Data were collected at facility A for 3 months and for 63 days at facility B. All data were collected between August and December of 1983. A report of this study has not been published.

In summary the literature indicates that dissatisfaction with communications is associated with several factors. Role conflict among nurses and physicians can be a source of conflict that leads to nurse dissatisfaction with an interaction. Both nurses and physicians have a set of role expectations about their professions that guide their practices. When planning patient care as a part of that practice, nurses assign different priorities to patient care problems than do physicians. When a nurse communicates a patient problem to a physician she expects a response based on how important the problem is to her. Conflict results when the physicians' responses are unexpected (Allen et al., 1980). Conflict within the nurse then becomes a source of dissatisfaction with the communication.

A second source of nurse dissatisfaction cited in the literature was related to nurses' perceptions of how they influenced the patient care planning process. Not perceiving oneself as being involved in the decision-making process has been reported as contributing to "job dissatisfaction among nurses, patient's acting out, and families' complaining" (Denber, 1976). When nurses perceive that they are not being involved in patient care decision making they will not be satisfied with the outcome of the

communication. It has been reported that improved communication between physicians and nurses increases the understanding nurses have regarding the physicians' goals of patient care, and therefore increases the ability of nurses to provide better nursing care (Isom, 1965).

A third source of problematic telephone communications was discussed in terms of physicians' roles in the communication process. Curtis (1978) concluded that although physicians rely on the telephone for patient care management, they are not adequate telephone communicators and they often talk down to subordinates. Inaccessibility, an inability to be understood and inadequate time spent talking to nurses are factors that "jeapordize" the communication (Curtis, 1978 and Sloane et al., 1983).

Physician disinterest in the geriatric client was discussed as another factor that leads to nurse dissatisfaction with telephone communications in geriatric settings (Miller et al., 1976). According to Curtis (1978) it is up to the physician to set the tone of the telephone communication. Physician disinterest in the geriatric client could serve to adversely affect the tone of the nurse-physician telephone communication resulting in nurse dissatisfaction with the outcome.

The potential for problematic nurse-physician communications has been addressed by several authors. Nurse dissatisfaction with telephone communications with physicians in nursing home settings has not been investigated in reported studies. This study will examine the extent of nurse dissatisfaction as well as selected factors that may be related to dissatisfaction with telephone communications in selected nursing home settings.

# CHAPTER III.

## Methodology

The purposes of this study were: 1) to determine the extent of nurse dissatisfaction with physician telephone communications in selected nursing home settings and, 2) to determine which factors are associated with dissatisfaction among nurses regarding their telephone communications with physicians.

The data for this study were collected over a three month period between August and December 1983. The sample consisted of 637 data slips of recorded telephone calls between physicians and licensed nursing staff of two long term care facilities in one town in central North Carolina.

In order to determine the extent of nurse dissatisfaction with telephone communications with physicians, responses in the category "Nurse satisfied with call?" were totaled. The three choices for this category were "Yes, definitely", "Somewhat", or "No". The responses marked "Yes, definitely" were identified as those telephone calls that resulted in nurses being "satisfied" with the communication. The responses marked "Somewhat" satisfied and "No" were identified as those telephone calls that resulted in the nurse's being dissatisfied with the communication.

To determine whether nurses were dissatisfied with telephone communications with physicians when no medical orders were generated, "satisfied" and "not satisfied" reponses were examined according to whether medical orders were generated. To determine whether or not medical orders were generated as a result of the telephone

communication, responses in the category "Call Outcome" were examined. One subcategory was "Orders Given". The responses "No Action", "Advice (no orders)", and "Physician to Visit" were classified as "No orders given".

To examine if there was an association between nurse dissatisfaction with telephone communications and the number of attempts made to reach the physician, "satisfied" and "not satisfied" responses were examined according to the number of times the call was placed before it was completed. To determine the number of attempts necessary for nurses to contact physicians by telephone, the responses in the category "Number of times call placed before completed" were examined. The possible reponses to this category were "1", "2", and "3 or more".

To test whether dissatisfaction with telephone communications to physicians occurred more frequently late at night than at other times, the "satisfied" and "not satisfied" responses were examined according to the responses in the category "Time call 1st placed" . "Late night calls" were those that were first placed between midnight through 7 a.m. Calls first placed from 7:01 a.m. until midnight were not considered late night calls.

To determine whether nurses were more dissatisfied with telephone calls that were concerned with administrative functions than with patient care problems, "satisfied" and "not satisfied" responses were examined according to the responses in the category "Urgency of call". The subcategories were "Emergency", "Somewhat Urgent", "Not Urgent", and "Administrative". A call was considered to be regarding administrative functions if "Administrative" was checked. The responses of "Emergency", "Somewhat Urgent", or "Not Urgent" were considered to be concerned with patient care problems.

The chi square test for independence was used to test each of the hypotheses. A .05 level of significance was used.

# CHAPTER IV

## Results

The total number of telephone encounters recorded during the study period was 637. Of those, 579 (90.9%) of the data slips had responses in the category "Nurse satisfied with call?", and were used to test the hypotheses.

For the category "Nurse satisfied with call?" a total of 526 (90%) responses were marked as "Yes, definitely". Forty-five responses were "Somewhat". The number of "No" responses was 8. That is, 10% were classified as "Not satisfied".

Four hypotheses were tested with the data obtained.

1- Nurses are more likely to be dissatisfied with telephone communications with physicians when no medical orders are generated than when medical orders are generated. The number of responses in the category "Call Outcome" was 579. There were 494 (86%) calls that generated orders. The number of calls that resulted in no orders was 85 (14%). When no orders were generated dissatisfaction was present in 25% of the calls. When orders were generated 6% of calls were classified as not satisfied. That is, a larger percentage of the calls were classified not satisfied when orders were not generated than when orders were generated. Nurses were more likely to be dissatisfied with telephone communications to physicians when no medical orders were generated. This difference was statistically significant. This hypothesis was supported.

Table 1

Nurse Dissatisfaction According to Generation of Medical Orders

| | Orders Given | No Orders | Total |
|---|---|---|---|
| Satisfied | 462 | 64 | 526 |
| Not Satisfied | 32 | 21 | 53 |
| Total | 494 | 85 | 579 |

chi square = 28.980 df=1 $p<.05$

2- Nurse dissatisfaction with telephone communications with physicians is positively associated with the number of attempts made to reach the physician or his designate. The number of responses for the category "Number of times call placed before completed" was 562. Of these, 464 (83%) of the calls were completed in "1" attempt, 77 (14%) in "2", and 21 (4%) in "3 or more". When one call was required to reach the physician 6% of the recorded calls were classified as not satisfied. When 2 calls were required to reach the physician 13% of the calls recorded were classified as not satisfied. When 3 or more calls were required to reach the physician 57% of the calls recorded in that category were classified as not satisfied. Nurse dissatisfaction with telephone communications was positively associated with the number of attempts made to reach the

physician or his designate. The difference between the presence of nurse dissatisfaction and the number of calls placed to the physician before completion was statistically significant. This hypothesis was supported.

Table 2

Nurse Dissatisfaction According to the Number of Times Call Placed Before Reaching Physician

| | 1 | 2 | 3 or more | Total |
|---|---|---|---|---|
| Satisfied | 434 | 67 | 9 | 510 |
| Not Satisfied | 30 | 10 | 12 | 52 |
| Total | 464 | 77 | 21 | 562 |

chi square = 62.933 df=2 $p<.05$

Note. 17 data slips were not marked for this variable.

3- Nurse dissatisfaction with telephone communications with physicians occurs more frequently late at night than at other times. The number of responses in the category "Time call 1st placed" was 574. Of those, 14

(2%) were late at night. The remaining 560 (98%) calls did not occur late at night. Of late night calls, 14% were categorized as "not satisfied". Late night calls were recorded as "satisfied" 86% of the time. Calls that were not late night and that resulted in nurse satisfaction occured in 91% of recorded responses. The remaining 9% of these calls were categorized as "not satisfied". There was a greater percentage of dissatisfaction among the late night calls than other calls, but the difference was not statistically significant. Nurse dissatisfaction with telephone communications with physicians did not occur more frequently late at night than at other times. The hypothesis was not supported.

Table 3

Nurse Dissatisfaction According to the Time of Day Call Placed

| | Late at night | Not late at night | Total |
|---|---|---|---|
| Satisfied | 12 | 509 | 521 |
| Not Satisfied | 2 | 51 | 53 |
| Total | 14 | 560 | 574 |

chi square =0.437 df=1 $p>.05$

Note. 5 data slips were not marked for this variable.

4- Nurse dissatisfaction with telephone communications with physicians will be greater when the calls are regarding administrative functions rather than when regarding patient problems. The number of responses in the category "Urgency of call" was 570. "Administrative" calls numbered 241 (42%). Calls that were "not administrative" totalled 329 (58%). "Administrative" calls resulted in dissatisfaction 5% of the time. Of the calls that were "not administrative" in nature, 13% resulted in dissatisfaction. That is, nurse dissatisfaction was greater with non-administrative calls than with administrative calls, and this difference is statistically significant but in the opposite direction of the hypothesis. Nurse dissatisfaction with telephone communications with physicians was not greater when the calls were regarding administrative functions rather than when regarding patient problems. The hypothesis was not supported.

Table 4

Nurse Dissatisfaction According to Administrative and Not Administrative Calls

| | Administrative Calls | Not Administrative Calls | Total |
|---|---|---|---|
| Satisfied | 230 | 287 | 517 |
| Not Satisfied | 11 | 42 | 53 |
| Total | 241 | 329 | 570 |

chi square =11.094 df=1 $p<.05$

Note. 9 data slips were not marked for this variable.

Discussion and Implications

Nurse dissatisfaction with telephone communications to physicians was classified in 10% of all calls recorded during the study period. The significance of this percentage has not been discussed in literature on problematic communications. Nurses depend on telephone communications with physicians to manage patient care in nursing home settings. Further research is needed to quantify the relationship between problematic communications and the need for interventions.

Two of the four hypotheses of this study were supported. One was that nurse dissatisfaction with telephone communications was greater when no medical orders were generated. Support for this hypothesis implies that nurses and physicians differ in deciding when medical orders are warranted. How the physican and nurse view the patient has been discussed as a possible source for nurse dissatisfaction when no medical orders are generated. Physicians who regard their patients as "symptom vehicles" and nurses who regard their patients as "order vehicles" differ in their views on the necessity for medical orders (Baziak and Denton, 1965). These differences in views give rise to conflict when nurses do not get medical orders that they believe are needed. Inservice activities that allow nurses and physicians practice in resolving patient care problems through communicating differences in views could improve mutual understanding concerning the need for medical orders. Training situations in which nurses identify an expected set of physician responses to specific nurse communications might lessen the opportunity for conflict to arise (Allen et al., 1980). Nurses and physicians engaged in understanding each others' beliefs and attitudes regarding when medical

orders should be generated could reduce the tension and conflict that can result in problematic communications (Festinger, 1957). Along with practice, instruction on avoidance of the common barriers to communication found in nursing home settings could assist nurses in preparing to give and receive messages (Ceccio, 1982). Further, instruction in effective telephone communication skills based on modification of language by sound, pitch, resonance, accessory utterances and non-verbal cues could increase the communicator's ability to be understood (Birdwhistle, 1970).

An association between nurse dissatisfaction and the number of attempts necessary to reach physicians regarding patient problems was a second finding of this research. Telephone access to physicians oncall for nursing home facilities is important to the outcome of the interaction between the physician and the nurse providing patient care. Nurses may be more dissatisfied when physicians are not readily accessible if they are dealing with a patient care problem that they feel is urgent. Physicians may themselves be involved in patient care situations that prevent them from being readily accessible. Nurses vary in their needs for physician accessibility and physicians vary in how accessible they make themselves to nurses. These individual variations in types of communicators range from persons who are very intolerant and rigid to those who are very open-minded and flexible regarding accessibility (Harvey et al., 1973). In order to increase understanding and tolerance among these professionals, inservice programs that promote sharing personal experiences regarding accessibility could be planned for nurses and physicians. As a method for reducing intrapersonal conflict, dialogue between nurses and physicians

regarding constraints to physician accessibility could reduce the tension and discomfort that result in dissatisfaction when physicians are not readily accessible (Lecky, 1961).

The third hypothesis, which was not supported, was that nurse dissatisfaction with telephone communications with physicians occurs more frequently late at night than at other times. Nurses indicated less frequently that they were satisfied with calls when they were made late at night than at other times, but the difference was not statistically significant. The majority of telephone interactions between nurses and physicians occurred during the day. Late night nurses may have been both better mentally prepared and have had fewer distractions to deal with than did nurses working at other times. Night nurses have more time to plan their telephone communications as well. Planning results in better organization of information that is necessary for decision-making. Nurses' planning may improve their ability to be understood by organizing information concerning the patient in a way that enhances the diagnostic skill of the physician. Further, physicians are more accessible to nurses late at night than other times (Curtis, 1978).

Hypothesis four, which was not supported, stated that nurse dissatisfaction was associated with telephone communications to physicians regarding administrative functions. Nurses indicated that they were more dissatisfied with non-administrative calls than with administrative calls, and the difference was statistically significant but in the opposite direction of the hypothesis. Administrative calls may have resulted less often in nurse dissatisfaction due to the lack of urgency related to the resolution of patient care problems. These calls may have

required less "mental preparation" by the nurse and "sensory information" may have been more complete since patient assessment was not required. Both of these factors serve to reduce barriers to effective communication. Administrative calls did not deal with patient care issues. Therefore, nurses were less likely to be faced with inconsistent ideas about patients' care that could lead to dissatisfaction (Lecky, 1961). The lack of relevance and importance to nurses of administrative calls could have affected further the outcomes so that dissatisfaction was not reported (Festinger, 1957).

Almost half of the calls in this study were classified by nurses as administrative. This was a significant finding of the study. Administrative calls were defined as those calls not relating to patient care. During the taped practice sessions, calls that might have been classified as administrative were not used, however. Nurses who spent time completing administrative calls could not be delivering patient care at the same time. In order to better understand how calls are designated as administrative by nurses, further study is needed. Patient care could benefit if less nursing time were spent on administrative calls that could be completed by individuals within a facility other than nurses.

This study was limited to two nursing homes in one state. Further study of dissatisfaction in other nursing home settings is needed in order to test the generalizability of these findings. It is not possible to determine if telephone data slips were completed for every telephone communication that was made during the study period. Further, all 637 data slips did not have complete information. In future studies a system for checking data slips for completeness and accuracy on a daily basis is

indicated. Determining the reliability and validity of the research instrument is also needed.

# CHAPTER V

## Summary

The purposes of this study were 1) to determine the extent of nurse dissatisfaction with telephone communications to physicians in selected nursing home settings; and 2) to determine what factors are associated with dissatisfaction.

The data were collected over a three month period between August and December 1983. The sample consisted of 637 data slips of recorded telephone calls between physicians and licensed nursing staff of two long term care facilities in one town in central North Carolina.

Nurses were classified as dissatisfied with telephone calls to physicians 10% of the time. Further research is needed to quantify the relationship between problematic interactions and importance of interventions.

The hypotheses tested were related to the second purpose of this study and were as follows:

1) Nurses are more likely to be dissatisfied with telephone communications to physicians when no medical orders are generated than when medical orders are generated.

2) Nurse dissatisfaction with telephone communications with physicians is positively associated with the number of attempts made to reach the physician or his designate regarding a patient problem.

3) Nurse dissatisfaction with telephone communications with physicians occurs more frequently late at night than at other times.

4) Nurse dissatisfacton with telephone communications with physicians will be greater when the calls are regarding administrative functions than

when regarding patient problems.

The chi square test for independence was used to test each of the hypotheses. A .05 level of significance was used.

Hypotheses 1 and 2 were supported. Hypothesis 3 and 4 were not supported, however. Support for hypothesis 1 implies that nurses and physicians differ in deciding when medical orders are warranted. How physicians and nurses view patients has been discussed as a possible source for nurse dissatisfaction when no medical orders are generated. Those differences in views give rise to conflict when nurses do not get medical orders that they believe are needed. Inservice activities that allow nurses and physicians practice in resolving patient care problems through communicating differences in views could improve mutual understanding concerning medical orders. Nurses and physicians engaged in understanding each others' beliefs and attitudes about medical orders could reduce nurse tension and conflict that result in dissatisfaction when orders are not given (Festinger, 1957). Along with practice, instruction in avoidance of common barriers to communication found in nursing home settings could assist nurses in preparing to give and receive messages (Ceccio, 1982). Further, instruction and practice in effective telephone communication skills based on modification of language by sound, pitch, resonance, accessory utterances, and non-verbal cues could increase the communicators' abilities to be understood (Birdwhistle, 1970).

An association between nurse dissatisfaction and number of attempts necessary to reach physicians regarding patient problems was a second finding of this research. Telephone access to physicians oncall for nursing home facilities is important to the outcome of the interaction between the

physician and the nurse providing patient care. Nurses may be more dissatisfied when physicians are not readily accessible if they are dealing with an urgent patient care problem. Physicians may themselves be involved in patient care situations that prevent them from being readily accessible. Nurses vary in their needs for physician accessibility and physicians vary in how accessible they make themselves to nurses. In order to increase understanding and tolerance among these professionals, inservice programs that promote sharing personal experiences regarding accessibility could be planned for nurses and physicians. As a method for reducing intrapersonal conflict, dialogue between nurses and physicians regarding constraints to physician accessibility could reduce the tension and discomfort that result in dissatisfaction when physicians are not readily accessible (Lecky, 1961). Training situations in which nurses identify an expected set of physician responses to specific nurse communications might lessen the opportunity for conflict to arise (Allen et al., 1980).

The third hypothesis, which was not supported, was that nurse dissatisfaction with telephone communications to physicians occurs more frequently late at night than at other times. Nurses indicated less frequently that they were satisfied with calls when they were made late at night than at other times, but the difference was not statistically significant. Night nurses may have been both better prepared mentally and have had fewer distractions to deal with than did nurses working at other times. Night nurses have more time to plan their telephone communications as well. Planning results in better organization of information necessary for decision-making. Planning may improve a

nurse's ability to be understood by organizing information concerning the patient in a way that enhances the diagnostic skill of the physician. Further, physicians are more accessible to nurses late at night than other times (Curtis, 1978).

Hypothesis four, which was not supported, stated that nurse dissatisfaction is associated with telephone communications regarding administrative functions. Nurses indicated that they were more dissatisfied with non-administrative calls than with administrative calls, and the difference was statistically, significant but in the opposite direction of the hypothesis. Administrative calls may have resulted less often in nurse dissatisfaction due to the lack of urgency related to the resolution of patient care problems. Administrative calls may also have required less "mental preparation" and "sensory information" may have been more complete since patient assessment was not required. These factors serve to reduce barriers to effective communication. Administrative calls did not deal with patient care issues. Therefore, nurses were less likely to be faced with inconsistent ideas about patients' care that could lead to dissatisfaction (Lecky, 1961). Further, the lack of relevance and importance to nurses of administrative calls could have affected the outcomes so that dissatisfaction was not reported (Festinger, 1957).

Almost half of the calls in this study were classified by nurses as administrative. This was a significant finding of the study. Nurses who spent time on administrative calls could not be delivering patient care at the same time. In order to better understand how calls are designated as administrative by nurses, further study is needed. Patient care could

benefit if less nursing time were spent on administrative calls that could be completed by individuals within the facility other than nurses.

This study was limited to two nursing homes in one state. Further study of dissatisfaction in other nursing home settings is needed in order to test the generalizability of these findings. It is not possible to determine if telephone data slips were completed for every telephone communication that was made during the study period. Further, all 637 data slips did not have complete information. In future studies a system for checking data slips for completeness and accuracy on a daily basis is indicated. Determining the reliability and validity of the research instrument is also needed.

# Appendix A

Sticker # _____ Date _____

Patient _____

Patient Unit # _____

Nurse's Note:

Time call 1st placed _____ am / pm

Time call resolved _____ am / pm

Physician contacted _____

**Number of times call placed before completec**

- ☐ 1
- ☐ 2
- ☐ 3 or more

**Urgency of call:**

- ☐ Emergency
- ☐ Somewhat Urgent
- ☐ Not Urgent
- ☐ Administrative

**Nurse satisfied with call'**

- ☐ Yes, definitely
- ☐ Somewhat
- ☐ No

Call Outcome:

- ☐ No Action
- ☐ Advice *(no orders)*
- ☐ Orders Given *(see orders)*
- ☐ Physician to Visit

Nurse Signature _____ RN LPN OTHER *(circle one)*

Patient _____

| ORDER DATE | CODE | PHYSICIAN TELEPHONE ORDERS |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Nurse Signature Physician Signature Date

*physician must sign within 48 hours*

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