

DEVELOPMENT OF A TOOL TO MEASURE THE DEGREE OF  
COMMUNICATION AND CONFLICT THAT EXISTS BETWEEN EMERGENCY  
DEPARTMENT NURSES AND PARAMEDICS

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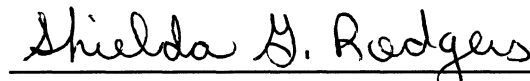
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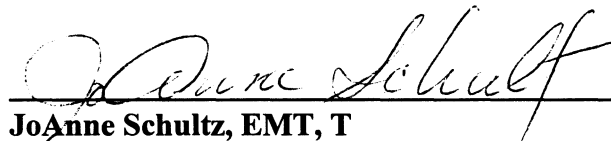
**SUCCESSFULLY DEFENDED HER MASTER'S THESIS ENTITLED:**

**DEVELOPMENT OF A TOOL TO MEASURE DEGREES OF CONFLICT  
BETWEEN EMERGENCY ROOM NURSES AND PARAMEDICS**

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## ABSTRACT

Title of Thesis: Development of a Tool to Measure the Degree of Communication and Conflict That Exists Between Emergency Department Nurses and Paramedics.

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This study was undertaken to develop a tool that would examine the degree of conflict that exists between emergency room nurses and paramedics. The research was to be descriptive involving quantitative study of the relationships between variables. The variables include: interaction between ER nurses and paramedics prior to patient arrival in the emergency room, the different perspectives on patient care, and the differences in perceptions of job descriptions, responsibility, and roles of nurses and paramedics in an emergency department setting.

The setting is via computer email. The questionnaire was developed, then sent by email to the primary study subjects, and was then mailed back to the researcher at her home address. The subjects were all members of America On Line and from the USA. The researcher performed a pilot study in Salisbury using a convenience group of five paramedics and five nurses from the local area.

The subjects were chosen from the member profiles utilized on America On Line(AOL). A search was done by job description only. The list generated by the search

was of screen names and no other personal information was obtained. The researcher sent by email, a cover letter to each subject describing the nature of the research. The subjects were required to read the questionnaire, answer it, and then mail the questionnaire back to the researcher. The questionnaire was sent to 51 nurses and 57 paramedics.

There were minimal risks involved in this research. The subjects were only asked if they were paid or volunteers, if they were nurses or paramedics, if they were male or female, and how many years of experience and education they had. No other identifiers were used.

Benefits to the subjects included, the satisfaction of participation in the research of the topic and the contribution to the development of a tool that could be used to improve relationships between nurses and paramedics. The global benefits were in five different areas: better continuity of patient care, improved understanding of the attitudes of nurses to paramedics and paramedics to nurses, improved working relationships based on professional respect and understanding, improved understanding of the conflicts that exist between nurses and paramedics, and better team work. Consent was not written. The cover letter of the questionnaire acted as a disclosure and advised the subject that if they returned the questionnaire, consent would be implied.

The examination of conflict between nurses in an Emergency Department and paramedics required the development of two hypotheses. Descriptive statistics were used

to examine the answers of the study subjects and a summated rating scale was chosen as the type of questionnaire to be used. Reliability of the tool was examined in the pilot study and changes were made to clarify questions. The primary study was also examined for questionnaire reliability , and items were discovered to again need rewording. Some of the items on the questionnaire required reverse scoring for the purpose of determining a conflict score. The higher the score on items 7 to 17, the more conflict was present. Research Hypothesis 1 and 2 related to the understanding by each group of educational background, patient care focus, and perceptions. Both hypotheses were supported by the findings of the study.

Conclusions that were based on the findings of this study included: (1) the conflict that occurs between nurses and paramedics in the Emergency Department setting can be measured using a summation scale, (2) there is conflict that exists between nurses and paramedics due to lack of understanding of each others educational background, job focus, and perceptions, and (3) there is little difference between conflict scores of paid paramedics and those of volunteer paramedics.

## ACKNOWLEDGEMENTS

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## CHAPTER I

### THE PROBLEM

#### Introduction

The field of Emergency Medical Services (EMS) has evolved greatly over the last thirty years. Before the 1960's, most rescue squads were affiliated with small local fire companies whose members had very limited training in emergency procedures. The National Academy of Sciences, National Research Council conducted a major research project in 1966 that resulted in a paper titled: "Accidental death and disability: the neglected disease of modern society." "The White Paper" described the inadequacies of emergency medical care in this country (Bledsoe, Porter, & Shade, 1994, p. 14). This study resulted in the establishment of training programs for EMS personnel and the upgrading of equipment.

Paramedic training programs were developed in the United States by Dr. Eugene Nagel at the University of Miami School of Medicine (Bledsoe, Porter, & Shade, 1994). These programs provided training and skills that had previously only been performed by a physician. A paramedic may obtain a four-year college degree, but most of these certified practitioners continue to obtain their training from specialized programs lasting less than two years. The paramedic practicing today follows a set of state mandated protocols with specific steps for treatment of specific symptoms obtained by assessment of a patient.

The nursing profession has evolved over a much longer time frame. The history of the field of nursing evolved from the care of the sick by those with the ability to

nurture. A nurse is now educated in two or four years and can obtain a college degree. Emphasis is placed on professionalism, holistic care, and ethics. "Nursing is defined as assisting the client in any setting, through the application of the nursing process, to maintain or attain a state of dynamic equilibrium at the highest possible level of wellness with the least possible expenditure of energy" (Lewis & Collier, 1992, p. 17).

The emergency department nurse and the paramedic have different job descriptions and view patient care from two different perspectives. Both are responsible for treating emergency cases whose conditions can range from the minor injury to acute cardiac arrest or trauma. The paramedic examines the patient in the field setting when dispatched to an emergency scene. The emergency department nurse examines the patient after the paramedic has stabilized (if possible), and transported into an emergency department.

The paramedic must notify the emergency department via radio: of the type of patient, condition of patient, pertinent medical information, the protocols initiated in the field, and the assigned priority of the patient. This communication is usually done with an emergency department nurse but can also be carried out with a physician if orders are needed for treatment. Each of these professionals strives to excel in their work environment and this can result in communication breakdowns and conflict.

The transfer of the patient information both by radio and in person can be a point of conflict between the pre-hospital provider and the emergency room nurse because each professional may have different perspectives on patient care. Verbal and non-verbal

feedback between both professionals can indicate differences in understanding and result in resentment, anger, and misunderstandings . Lack of knowledge about the educational background of each other and the differences of opinion on treatment plans may prevent clear communication of patient information.

#### Purpose of the Study

The purpose of this study is to develop a tool to examine the conflicts that can occur between emergency department nurses, and paramedics, and secondarily, to study the differences in the relationships as they occur in relation to a paid paramedic versus a volunteer paramedic. Data will be examined to determine if conflicts do exist and if so, how communication breakdowns are related to the conflicts.

#### Significance of the Study

Nursing can benefit from this study in five different areas: better holistic patient care, smoother transition of patients upon arrival at the emergency department, improved professional working relationships with paramedics, improved communication and job understanding, and better team work. These issues all affect patient care and by examining the current status of the relationships and communication between paramedics and nurses, an opportunity to improve that care may result. No questionnaire has ever been published that measures the conflicts that occur between nurses and paramedics. This study is significant because it will provide data that will assist both the nursing profession and the paramedic profession in examining the communication breakdowns that occur in the emergency department setting. This

information will provide some of the underlying reasons for the possible occurrence of conflict and provide direction for better education, enabling both professionals to work together for patient care.

### Research Questions

1. Does conflict occur between emergency department nurses and paramedics in the field?
2. What is the perception of the nurse or paramedic toward each other's profession?
3. Are there differences between the attitudes towards nurses of paid paramedics and volunteer paramedics ?
4. How do paid and volunteer paramedics communicate differently?

### Hypotheses

Hypothesis 1: Nurses that work in the emergency department will report that conflict occurs between themselves and paramedics because the paramedics do not understand their training or job focus.

Hypothesis2: Paramedics that bring patients to the emergency department will report that conflict occurs between themselves and the nurses because the nurses do not understand their training or job focus.

### Assumptions and Limitations

The following assumptions are identified in regard to this research study :

1. Communication that occurs between nurses and paramedics is

complex.

2. The member profiles of America On Line are accurate in their description of job classification.
3. Respondents to this study will be able to read and write on a tenth grade level.
4. The participants in this research project will respond honestly with regard to questions about their communications with the other group.

The following limitations to this study have been identified:

1. Access to sample group may be limited.
2. The sample will be a convenient one, not representative of paramedics and ER nurses in general, but limited to responses by computer.

### Definitions

The following operational definitions are pertinent to this study :

1. Nurse: A registered nurse employed by a hospital in an emergency department setting.
2. Paramedic: An individual certified by the state in which they practice as a paramedic that performs emergency medical services in the field.
3. Paid: A paramedic that is paid for working in the field.

4. Volunteer: A paramedic that does not receive pay for working in the field.
5. Communication: Verbal or nonverbal interaction between nurse and paramedic. This may be in person or by radio.
6. Patient Care: The care received by a patient as provided by medical personnel.
7. Field: The prehospital setting. The location of the patient and paramedic prior to arriving in the emergency department.
8. Attitudes: The response of nurses and paramedics to each other using both verbal and non-verbal communication that is in connection with an action, feeling, or mood. Indicated on the questionnaire by questions 12, 13, 14, 15, 16, and 17.
9. Communication: The verbal and non verbal response of a nurse to a paramedic and a paramedic to a nurse. Indicated on the questionnaire by questions 7, 8, 9, 10, and 11.



## CHAPTER II

### REVIEW OF THE LITERATURE

Literature for the topic of nurse and paramedic interactions can be combined into two categories; communication issues and resulting conflict issues. This review will place emphasis on the issues of communication between healthcare providers, and give examples of conflict as it occurs in the health care setting.

#### Communication

Communication is a process that “involves sending, receiving, perceiving, and interpreting many stimuli” (Taylor, Rosegrant, Meyer, & Samples, (1983), p. 26). One of the important concepts of communication is that of self-concept. Self-concept as discussed by Taylor, Rosegrant, Meyer, & Samples (1983), involves the beliefs and attitudes a person has about themselves. These beliefs influence how a person communicates. People communicating must have “shared meanings” or concepts that they both perceive as important. Words, systems, and languages are all part of those concepts that communicators share. The two basic types of communication are verbal and nonverbal. Verbal communication involves the aspect of speaking and listening while nonverbal communication necessitates observation and involves the senses. There are several elements of communication. The most commonly discussed elements include; the person who sends a message or the sender, the person intended to receive the message or the receiver, the message itself, and feedback or information that is passed back to the sender and assists with answering of the message (Hopper &

Whitehead, (1979). Messages obtain their meaning from the perceptions of the sender and receiver. These perceptions are developed from lifetime experiences, emotions, listening and perspective. Differences in perspective and perception have a large effect on how information and ideas are communicated.

Gouran, Miller, & Wiethoff (1992) discussed the concept of metaperception. They indicated that this was “the process of inferring what another person is experiencing” (p. 23). They also described four stages of perception: sensation, awareness, categorization, and interpretation. The characteristics of perception were listed as the measurable characteristics of the interpretations we make of sensory experience and involved perceptions being tentative, learned, and selective (p. 29-30).

Different factors affecting perception include beliefs, motives, attitudes, influences on the message production, and influences on the message reception (p. 36-37). The way communication can influence perception was discussed by Gouran, Miller, & Weithoff (1992) and included the verbal and nonverbal behaviors of focusing attention, providing categories for the interpretation of experience, and creating associations among categories using direct and indirect associations (p. 38-41). “The relationship between communication and perception is reciprocal. Perception enters into both the production and reception of messages. It affects what we choose to say, the way in which we frame it, the meanings we assign to messages, and our reactions to them” (p. 42).

Bledsoe, Porter, & Shade (1994) discuss the importance of communication in the

field of Emergency Medical Services (EMS). They discuss the six aspects of EMS communications as: occupance, detection, notification and response, treatment and preparation for transport, transport and delivery, and preparation for the next event (p. 53). The communication of patient information by the paramedic to the hospital or the medical control physician is considered a “fundamental component of the EMS system. Verbal communications, which may occur via radio or land line, provide the hospital with enough information on the patient’s condition to prepare for care. In addition, these communications should initiate required medical orders for patient treatment in the field” (p. 65).

Nursing also considers communication a fundamental concept of the profession. Lewis & Collier (1992), discuss the importance of communication both in interviewing and teaching. Nursing emphasizes “establishing a relationship and obtaining information are the goals of the communication process” (p. 29). Communication is discussed as “manner of dress, gestures, and body language”, in addition to verbal responses (p. 29). The need for the nurse to communicate acceptance of the client is also discussed. This aspect could be emphasized with relationship to the communication between paramedics and nurses.

The paramedic is taught to consider each patient as an event and to constantly be prepared for the next occupance. Nursing teaches the importance of acceptance of a person in communication but does not stress the possible factors that could affect the transmission or conversation such as time constraints, danger, and scene noises. All of

these areas are potential aspects of communication that can lead to misunderstandings, and conflict.

### Conflict

Conflict is a word that has been used to describe many concepts. Mack & Snyder (1957/1971) defined eight properties of conflict:

1. Conflict requires two or more parties.
2. Conflict results from position and resource scarcity.
3. Behaviors of conflict are designed to destroy, hurt, injure, thwart, or control another party. Parties gain at each other's expense.
4. Conflict requires opposing actions and counteractions.
5. Conflict involves control of resources or influencing behavior in certain directions.
6. Conflict has important consequences and is a fundamental social-interaction process.
7. Conflict represents temporary tendency toward disjunction in the interaction flow between parties.
8. Conflict relations do not represent a breakdown in regulated conduct but a shift in governing norms and expectations (p. 8-9). Communication, perception, attitudes toward one another, and task orientation all affect conflict.

Webster (1988) discussed the relationships between medical students and nurses.

Discussion concentrated on the differences in role perception, goals, and decision making capabilities. Conflicts resulted when the two professions failed to communicate and interact. Role examination was suggested to change the way each group perceived the other. Other solutions included; direct rather than indirect communication, changes in interpersonal communication, and changes in stereotyping.

Glennon (1985) examined the differences in the perspectives of the practitioner and the bureaucrat. Emphasis was placed on the need for resolving conflicts with a “mutual recognition of how much different professionals need each other’s respect in order to practice effectively in each one’s distinct field” (p. 62).

Katzman and Roberts (1988) studied the conflicts that occur between nurses, nurse practitioners, and physicians. This study examined the roles, role definitions, demeanor, and interactions between these professionals. Interviews were conducted to obtain information on the physicians perceptions of the practice boundary of both nurses and nurse practitioners. Results of this study indicated that differences in perceptions of roles, create conflict. Task orientation, attitudes, perceptions, and communication were areas examined by Minard (1988) to explain the cooperation and competition among nurses. She suggested clarification of roles and open communications as a method of improving cooperation from nurse to nurse.

Many factors can contribute to conflicts among medical professionals: “different goals, different methods of meeting goals, different values, lack of information, and overlapping roles” (Mallory, 1985, p. 82). Communication between and among medical

professionals is indicated as extremely important for clarification of role definitions and perceptions.

Few studies have been published that examine the communication relationships between emergency department nurses and the paramedics that bring patients into the department. Palmer and Gonsoulin (1992) published a study on the interactions between emergency department nurses and paramedics. This study examined the relationships between these two professions. Interviews were conducted with twelve nurses, twenty-one paramedics, and two emergency department physicians. Issues that resulted in conflict included: attitudes, behaviors, differences in training, overall perceptions of patient care, and communication. The study emphasized the different training and educational background of these two professions. Nurses are focused on “the broader aspects of biology, medicine, patient care and comfort, and in the theoretical aspects of health and sickness. Paramedics are narrowly and relatively quickly trained to perform life-saving feats through the use of basic and advanced skills and the operation of simple and complex equipment” (p. 48). The conclusions of this study stated that the differences in the perceptions of each situation and the probable differences in approach could result in differences of opinion.

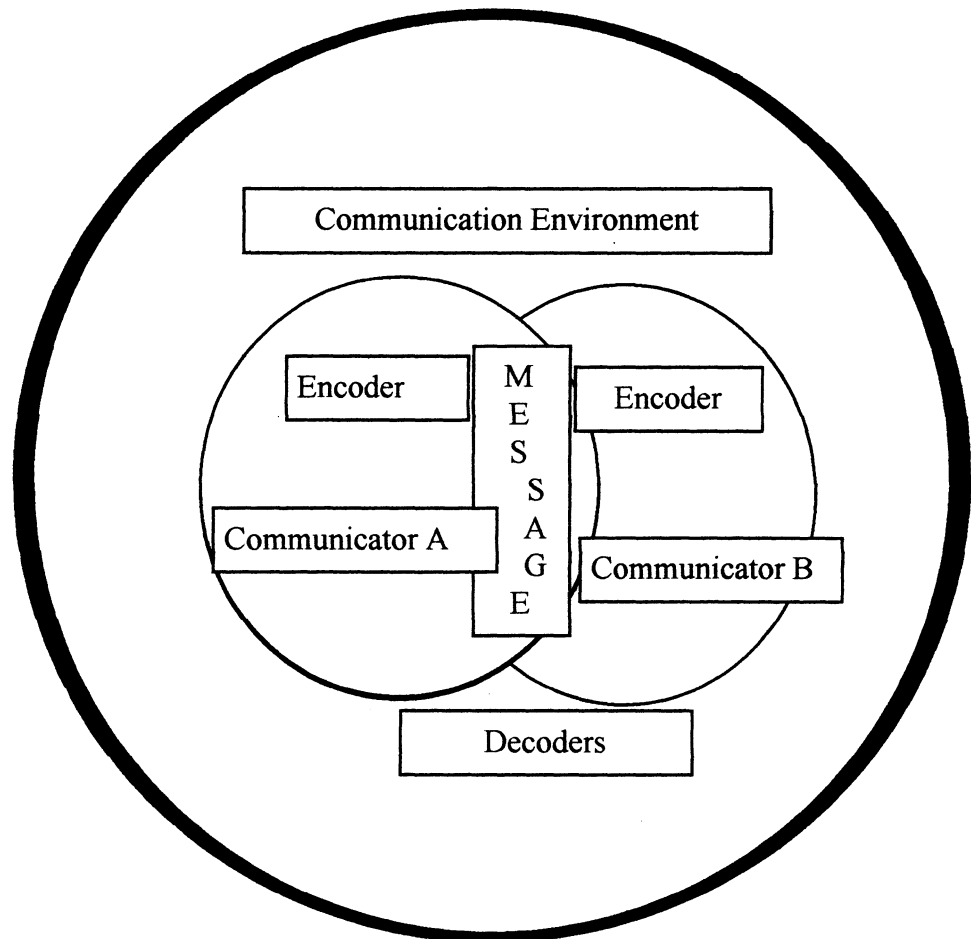
Another study conducted by Palmer and Gonsoulin (1991), concentrated on just the communication issue between nurses and paramedics. This study examined communication by radio and in person during patient transfer in the emergency department. A questionnaire was developed that examined differences in

communication, sources of conflict, and impact of communication on working relationships and patient care. The study consisted of eleven demographic interview questions and a fourteen question “communication index” that measured responses on five point scales: strongly agree to strongly disagree, always to never, and excellent to very poor. This study addressed both verbal and non-verbal communication issues. The study sample consisted of 25 full time paramedics and 25 emergency department nurses. Data identified three primary areas of “emerging themes: sources of conflict, similarities and differences in communication, and perceived impact on working relationships and patient care” (p. 2). Conclusions of this study indicated the nurses and the paramedics had difference in perception of the components of communication. Both groups had similar beliefs on how they viewed communication. The three areas of differences included: attentiveness to radio communication, tone of voice, and general attitudes about nurse and paramedic communication.

### Theoretical Base

This study of nurse and paramedic interactions, is based on communication theory. Communication is defined by Berko, Wolvin, and Berko (1992) as a process in which feelings and ideas are consciously or unconsciously expressed in verbal and nonverbal messages. This communication is described as “dynamic, continuous, irreversible, interactive, and contextual” (p. 5). The Transactional Model of Communication is the model chosen to best represent the communication process that takes place in the emergency room setting (Figure 1).

Figure 1. Transactional Communication Model.



Berko, Wolvin, & Berko. (1992). Communicating. (5th ed). Texas. Houghton Mifflin. p. 52.



In the Transactional Model, “the communicator A encodes a message and sends it. Communicator B then encodes the feedback and sends it to A, who decodes it. But these steps are not mutually exclusive because encoding and decoding may occur simultaneously. Speakers may send a verbal message and at the same time may receive and decode a nonverbal feedback message from listeners. The process of encoding and decoding can occur continuously throughout a communication. Because messages can be sent and received at the same time, this model is multidirectional” (Berko, Wolvin, and Berko, 1992, p. 53). The Linear model of communication does not apply, because it is one-directional communication and is limited. The Interaction Model does not account for the interacting roles played by both the sender and the receiver, therefore it too does not apply in the emergency department.

Bradley and Edinberg (1986) combined communication issues and provided examples of different issues of communication as they relate to nursing. Examination of communication between nurses and co-workers provided evidence of four “dimensions” of reciprocal relationships. These dimensions were published by Phillips in 1979 and adapted to nurse-physician relationships (Bradley and Edinberg, 1986, p. 187). The dimensions include: task dimension, authority dimension, deference dimension, and affect dimension. The dimensions are defined as:

1. Task Dimension is the division of tasks or activities delegated to a particular health care provider.
2. Authority Dimension is how much power each health care provider has in

relation to other health professionals.

3. Deference Dimension is whose needs take precedence.
4. Affect Dimension is concerned with feelings health care providers have toward each other (Bradley and Edinberg, 1986, p. 187).

The prevailing theme of articles and studies indicate that the dimensions are present and related to many areas of conflict that occur as a result of communication between health care providers. As research is conducted on the communication between nurses and paramedics, the information provided on the dimensions will be examined.

In this study, the paramedic or the nurse is the communicator. One encodes the message and sends it, while the other acts as the second communicator and decodes the message. During the encoding and decoding, the process can break down due to misunderstandings about each other's educational background, focus of patient care, the quality of the message, and the feed back received from the other communicator. Other factors that influence the communication process between the nurse and paramedic include: the environment of the paramedic, the time limitations, the respect for each other, the interpretation of the necessity for a skill to be performed by the paramedic, and the nonverbal feedback that occurs between the two communicators in the emergency department.

An example of this communication would be of the paramedic on the scene of an accident. He is the communicator A and is speaking with a nurse in the emergency department, communicator B. The conversation is taking place over a radio and the

paramedic encodes the message of a need for cardiac medication. The nurse, communicator B, decodes the message and provides an answer from a physician that the paramedic can go ahead and give the drug. The paramedic, communicator A, decodes the message from the nurse and provides feedback by repeating the order and instructions. The communication environment is the radio with the background noise and busy scene noise of the accident scene. Time constraints, outside interference, and the voice tones of both the nurse and the paramedic, influence the perceptions of each communicator and how they will respond to each other. This study examines these issues and provides data on the factors that can result in misunderstandings or conflict between the paramedic and the nurse.

### CHAPTER III

#### METHOD OF STUDY

##### Research Design

This research will require a descriptive, non-experimental, design utilizing a survey questionnaire. Polit and Hungler (1991) stated non-experimental studies were used “to explain phenomena, to predict the occurrence and magnitude of phenomena, and to describe various characteristics and conditions” (p. 178). The survey was described as “used to obtain information from populations regarding prevalence, distribution, and interrelations of variables within those populations” (Polit & Hungler, 1991, p. 191).

Advantages of this type of research are: flexibility, an ability of wide focus, and the large amounts of information that are able to be collected. This design will afford the researcher the opportunity of obtaining quantitative data. The quantitative approach will be supported by use of an instrument that requires the subjects to provide answers to exactly the same questions.

The chosen study design will afford the researcher the opportunity to obtain information from subjects in a minimally explored area.

##### Study Subjects

Study subjects were a random sample from the available population of the computer service, America On Line. These subjects were chosen from the membership profiles and a search was done by job description only. The list generated by the search contained screen names only. No other personal information was obtained. The

researcher utilized e-mail and sent the questionnaire and a cover letter. The subjects were asked to answer the questionnaire and mail it back to the researcher through the e-mail system. The questionnaire was sent to 51 nurses and 57 paramedics that were members of America On Line and lived in the United States.

### Research Methods

Data collection was accomplished, by providing subjects of the study a questionnaire to answer. The questionnaire was developed by the researcher modifying an instrument that was developed by Palmer and Gonsoulin in 1991 and additional questions from the researchers own professional experiences. The Palmer and Gonsoulin questionnaire was prepared for a study funded by the Emergency Nurses Association and results were presented at the 1991 Emergency Nurses Association conference (Appendix A). Permission from both authors has been obtained by telephone and a copy of the questionnaire was sent to the researcher. The questions in the instrument are both open and closed ended. The researcher received permission from both authors to alter the questionnaire and to add questions as deemed necessary. The only stipulation placed on the use of this tool is that copies of the results of this study are forwarded to Palmer and Gonsoulin. The questionnaire consists of six questions on demographic information, five questions on nurse and paramedic communication, and six items that are measuring relationships and professional understanding of each other's job and training.

The researcher reviewed the data collection literature and chose to utilize a

summated rating scale consisting of some of the communication questions developed by Palmer and Gonsoulin, questions developed from the interview schedule of Palmer and Gonsoulin, and questions from the researcher's personal experience. This scale" contains a set of scales, all of which are considered approximately equal in attitude or value loading" (Waltz, Strickland & Lenz, 1991, p. 13). Summated rating scales are one of the most widely utilized techniques for measurement. This scale is usually simple to construct and maintains high reliability when the number of steps are sufficient. The choice of content used to develop the questions, was based on the interview schedule devised by Palmer and Gonsoulin and their questionnaire used to determine communication problems between Paramedics and Nurses (Appendix B).

Validity can be assessed by several different methods. Face validity is established if the instrument is reviewed by experts in the field of study (Polit & Hungler, 1991, p. 375). This type of validity was obtained by the evaluation of the tool by two experienced Emergency Medical Service professionals before the tool was used in the pilot study. Both of which stated that the tool would invoke intense responses and the issues appear very relevant to concerns of both sides of the issues (Parkes, Note1; ConnieEMTP, Note2).

The researcher completed the questionnaire in the spring of 1996 and carried out a pilot study utilizing a sample of ten. This pilot was to assist in providing the researcher with feedback on the validity, reliability, and content of the questionnaire. A Cronbachs Alpha was used to test reliability of the questionnaire.

### Pilot Study Results

The pilot study was performed for the purpose of providing the researcher with a determination of the reliability coefficient for the questionnaire using Cronbach's coefficient alpha and to assess the individual items of the questionnaire for correlations. During the evaluation of the tool by experts, it had been suggested to add a final question that examined the attitudes of the subjects toward paramedics working in emergency rooms as employees. The researcher agreed that this would be a valid question and could also be utilized as part of the measurement of conflict between the two subject groups.

The questionnaires were given to five paramedics and five nurses in Salisbury, Maryland. The paramedics were all members of the City of Salisbury's paid staff, and the nurses were all employed at the local emergency department. Two of the paramedics were also volunteers and two nurses were field providers. All five of the nurses completed and returned their questionnaires in one day. Four of the five paramedics completed and returned their questionnaires. Experience for the nursing subjects ranged from nineteen to twenty five years, all were female, and all were staff nurses. The paramedics had an experience range from three to twenty one years, all were male, and one was a supervisor.

### Data Analysis of the Pilot Study

Data obtained from this study was coded, the quantitative and descriptive statistics were done. It was determined that the negative questions on the questionnaire

would have to be reverse coded so that the answers would indicate score correlations with the answers of the positive questions. The smaller the total score on questions seven through seventeen, the smaller the amount of disagreement between the two groups and the less the conflict present. The total possible score for the questionnaire was 55. The mean of the group would also be lower if less conflict was present. Cronbach's coefficient alpha was used to calculate a reliability coefficient for the questionnaire. The questionnaires were scored separately because the last three questions on each were not identical. The original nurses questionnaire scored an alpha of .5 which indicated that the reliability was low. The questions were evaluated, numbers fourteen and ten had a large degree of variability in the answers given, and the pilot group indicated that there was confusion about both of these questions. The questions were reworded for the final study, both for clarity and to improve the reliability. The paramedic questionnaire had an alpha of .86 which indicated high reliability in that questionnaire. There were no indications from the pilot group that any of the questions on the paramedic questionnaire were confusing.

Mean and standard deviations were obtained for the responses of nurses and paramedics. Correlations were performed between communication and conflicts among both groups. The higher scores for communication questions also had higher conflict scores. Correlations were made between the responses of the paid paramedics versus the volunteers by examining the differences in the scores for conflict. These two groups were not assumed equal because of the differences in number of occasions for the two



groups of paramedics to come into contact with the nurses. Paid paramedics work a scheduled shift each week for pay and have higher frequency of appearances in the emergency department than do the volunteers, who worked without pay and only when the calls came to their stations and they are there. The paramedics that were volunteers had a lower average score of 30 indicating less conflict, while the paid paramedics averaged 31.5 a slightly higher degree of conflict. The means were completed on each question and the results indicated that the paramedics had a higher degree of conflict than did the nurses. The overall scores on the questionnaires also indicated that this was true (see Table 1 and Appendix C for Means).

Table 1

Total Scores for Nurses and Paramedics as an Indication of Degree of Conflict

Subject	Total Score Questions 7-17
<u>(n = 17)</u>	
Nurses	
N1	24
N2	25
N3	15
N4	23
N5	22
Paramedics	
P1	23
P2	40
P3	36
P4	24

Note. The higher the score, the greater the amount of conflict.

Communication questions were evaluated for responses and the two groups were compared. Nurses were positive in their responses of attentiveness to radio or telephone

communication in question number seven and nine. Paramedics were more split on this issue with 25% indicating that they disagreed. Nurses all disagreed or strongly disagreed that paramedics were withholding information until they could speak to a doctor but 50% of paramedics felt that nurses withheld information. Both groups agreed that radio communication influenced the face to face communication and disagreed that the paramedics rush through report to be able to go out on the next call. The question of respect being reflected in each others communication brought mixed answers from both groups. The nurses agreed or strongly agreed that respect was present but the paramedics were split with 50% disagreeing.

Conflict issues were examined by comparing the answers to questions twelve through seventeen. Paramedics disagreed 100% that the nurses understood their educational background and the nurses had a 60% frequency that the paramedics did understand but 40% also disagreed. Question thirteen held the largest split of answers for both groups. The paramedics were split 2 to 2 that patient care was viewed from different perspectives and the nurses split 1 to 4 with 4 answering agree or strongly agree. Fourteen examined the issue of paramedics performing advanced skills in the field. The nurses had 60% that disagreed that the skills were unnecessary and 20% that said they were. Paramedics had an interesting response in that 25% felt that they performed skills in the field that nurses felt were unnecessary and 75% said the nurses understood the need to perform those skills.

The next question addressed the issue of each professional knowing the

educational background of the person they are communicating with. This issue was closely correlated with 75% of the paramedics and 80% of the nurses stating that they did know the background. Question sixteen examined the feelings of both groups towards the amount of training a paramedic had and its relationship to the advanced skills they perform. The nurses indicated that they felt that the paramedics were trained sufficiently to perform the skills and the paramedics agreed.

The final question addressed the issue of paramedics working in the emergency department as employees and if they were taking up employment spaces. Of the nurses: 60% disagreed that they were taking employment, 20% were undecided, and 20% agreed. Paramedics were even more split on this issue with: 50% agreeing, 25% undecided, and 25% disagreeing.

### Ethical Implications

Each person in this study indicated consent by returning the questionnaire, granting the researcher permission to utilize the information obtained. All persons participating were given anonymity and each questionnaire was assigned a number primarily for the purpose of tracking and matching the responses on the computer. No names or identifying information was used. The lists of potential candidates were shredded by the researcher at the completion of the research project. Permission was obtained from the Salisbury State University Human Subjects Committee prior to beginning research on the project.

### Instrumentation

The tool for this study was developed by the researcher utilizing a combination of the communication tool of Palmer and Gonsoulin (1991), experiences of the researcher, and the recommendations of experts in the field of Emergency Medical Services. The design of the tool was a summated rating scale and was chosen for its simple construction and usually high reliability. The first version of the tool was utilized in the pilot study and upon completion of this study, two items were altered (Appendix B & Appendix D).

The original nurse's questionnaire scored an alpha of .5 and the paramedic questionnaire scored a .86 in the pilot study. After changes in the items of the nurse's questionnaire were made, it was assumed that the alpha would increase. The researcher analyzed the data of the final study and discovered that the alphas for both questionnaires dropped. The nurse's alpha decreased to a .02 and the paramedic's alpha decreased to less than .01. The researcher then examined each item and removed those with low alphas. A grouping of items was done, using the SPSSX computer software package, and the items that combined with the highest alpha were kept. Question by question, the items were added or deleted depending on the changes in the alpha. The results of this test indicated that the problem items were items 8, 12, 13, 14 & 15 (Appendix D). Item 12 was discovered to have a typing error on the paramedic questionnaire and the data was excluded from analysis. Item 8 was the question related to communication that asked if the group felt the opposite group withheld information until they could speak with a

doctor. Two of the paramedic responders answered this question but wrote comments that it did not make sense to them on the national level. Item 13 questioned the views of patient care and the researcher determined that this question could have been worded differently to apply to both groups on the national level. Item 15 scored a large variety of responses and again the researcher determined that with rewording, it would better apply on the national level.

## CHAPTER IV

### RESULTS

#### The Study Subjects-Primary Study

This study was performed on a computer, utilizing a commercial on-line service. The subjects were chosen from the member profiles of the computer service and mailed questionnaires on-line. The subjects were given less than three weeks to return the questionnaires to the researcher and all were provided with a specific return date. During the three week period, the researcher sent three reminders to the subjects repeating the return date and explaining that no questionnaires would be eligible for acceptance after that time period. Fifty-one nurses were sent questionnaires and nine returned them, a 17.6% rate of returned questionnaires. Fifty-seven questionnaires were sent to paramedics and eight were returned for a percentage of 14%. The researcher determined that a timeframe of at least one to two months would have provided a better rate of returned questionnaires. All of the questionnaires returned were complete and no missing values were entered into the data analysis.

#### Analysis of Data-Primary Study

The purpose of this study was to develop a tool to examine the conflicts that can occur between emergency department nurses and paramedics, and to study the differences in the relationships as they occur between paid paramedics and volunteer paramedics. The data was collected from an on-line computer service, analyzed,

and evaluated for answers of the research questions and analysis of the hypotheses (Appendix D).

Research Question 1: Does conflict occur between emergency department nurses and paramedics in the field? This question was answered as a yes and was evidenced by the total scores of both professions on the questionnaire. The higher the score, the more conflict was present (see Table 2 and Table 3). The average score for nurses was 24.4 and for paramedics was 26.5 which indicates that paramedics have a minimally higher conflict score. The lowest possible score on the questionnaire was 11 and scores over 22 indicated conflict was present. The resulting scores indicate both sides experience conflict.

Research Question 2: What is the perception of the nurse or paramedic toward each others profession? This question was examined in items 10 to 17 on the questionnaire (Appendix C). Both groups agreed that the paramedic does not rush through report on item 10. Item 11 examined the perceptions of both groups related to how each others communication reflected respect and the scores between groups varied widely (see Table 4). A higher percent of nurses (44%), were undecided or disagreed. Item 12 was found to have a typing error on the paramedic questionnaire that made it invalid and therefore a comparison of those answers had to be disregarded due to error. Item 13 questioned if nurses and paramedics viewed patient care from different perspectives. Both nurses and paramedics felt there were differences in views (see Table 5).



Table 2

Total Scores for Nurses as an Indication of Degree of Conflict

Subject	Total Score Questions 7-17
(N = 17)	
Nurses	
N1	22
N2	20
N3	26
N4	24
N5	29
N6	19
N7	27
N8	29
N9	24
Mean = 24.4	

Note. The higher the score, the greater the amount of conflict.

Table 3

Total Scores for Paramedics as an Indication of Degree of Conflict

Subject	Total Score Questions 7-17
<u>(N = 17)</u>	
Paramedics	
P1	32
P2	26
P3	28
P4	26
P5	26
P6	24
P7	26
P8	24
Mean = 26.5	

Note. The higher the score, the greater the amount of conflict.

Table 4

Nurse and Paramedic Responses Indicating if Communications Reflect Respect.

Answer	Percent	Total #
Nurses		
Strongly Agree	22.2	2
Agree	33.3	3
Undecided	11.1	1
Disagree	33.3	3
Paramedics		
Strongly Agree	25	2
Agree	50	4
Disagree	25	2

Note: Item 11: Generally, communications between nurses and paramedics reflect respect for each other's abilities.

Table 5

Nurse and Paramedic Responses Indicating if Patient Care is from Different Perspectives.

Answer	Percent	Total #
Nurses		
Strongly Agree	33.3	3
Agree	55.6	5
Strongly Disagree	11.1	1
Paramedics		
Strongly Agree	50	4
Agree	12.5	1
Undecided	12.5	1
Disagree	12.5	1
Strongly Disagree	12.5	1

Note: Item 13: Nurses and paramedics view patient care from two different perspectives.

Item 14 examined the nurse's viewpoint on skills paramedics perform in the field and the paramedics perception of the nurse's attitude toward skills they perform in the field. One of the nurses felt that paramedics performed unnecessary skills, and two of

the paramedics felt that nurses considered skills that they perform in the field unnecessary. The rest of the subjects agreed that the skills performed in the field by paramedics were necessary. Item 15 stated that each professional was usually aware of the educational background of the person they communicated with. Nurses felt a high degree of agreement with that issue, 77.8% agreed. Paramedics were more divided with 50% agreeing, 12.5% undecided, and 37.5% disagreeing.

The next item asked if each profession felt that paramedics were trained well enough to perform the skills they perform. Paramedics felt strongly, that they were trained well enough to perform skills and nurses agreed with them on item 16.

The last item of the questionnaire was added for the purpose of examining both groups' feelings related to paramedics working in an emergency department. Item 17 addressed the concept of paramedics being employed in the emergency department. This topic has been an issue that has been the subject of several articles written during the last year. Questions of responsibility and delegation have resulted from this issue. All of the paramedics agreed that they had a place working in the emergency department. The unexpected response was, that of the nurses responding to the questionnaire, only 22% felt that paramedics were taking up employment spaces. This indicated that more research is needed on this issue.

Research Questions 3: Are there differences between the attitudes toward nurses, of paid paramedics and volunteer paramedics? Five of the nine respondents were volunteer paramedics in addition to being paid paramedics. The average total scores on

their questionnaires indicate that the volunteer paramedics have conflict scores at 26.8, similar to that of the paid paramedics at 26.5

(See Table 6). The results of comparison of volunteer and paid paramedics versus paid only, indicated that there was little difference between these two groups. However, there were no respondents that were volunteer paramedics alone. All of the paramedics that volunteered were also employed for pay.

Research Hypothesis 1: Nurses that work in the emergency department will express that conflict occurs between themselves and paramedics because the paramedics do not understand the training or job focus of the nurses. Items 12, 13, & 15 examined this issue. The paramedic questionnaire had a typing error on item 12 which resulted in questionable answers. This item was removed and comparisons with the nursing questionnaire could not be made. Item 13 discussed the issues of patient care perspective. Both groups agreed that they viewed patient care from different perspectives.

Item 15 addressed the question of each group being aware of the other groups educational background. Again, both groups agreed that there was a question of understanding each others background. Two nurses or 22.2%, and 3 paramedics or 37.5%, expressed disagreement that they were aware of each others background. One paramedic or 12.5% was undecided. This hypothesis was supported to the extent that the paramedics and nurses had a different job focus and understanding of each others background.

Table 6

Total Scores for Paramedics as an Indication of Degree of Conflict Volunteer versus Paid

(N = 17)

Subject	Total Score Questions 7-17	Volunteer/Paid
Paramedics		
P1	32	Both
P2	26	Both
P3	28	Both
P4	26	Paid
P5	26	Paid
P6	24	Both
P7	26	Paid
P8	24	Both
Paid paramedic mean = 26.5		Volunteer paramedic mean = 26.8

Note. The higher the score, the greater the amount of conflict.

Research Hypothesis 2: Paramedics that bring patients to the emergency department will express that conflict occurs between themselves and the nurses because the nurses do not understand their training or job focus. Items 13, 14, 15, 16, & 17 addressed this statement. As described previously, item 13 provided data that nurses and

paramedics view patient care from different perspectives. Item 14 and 16 discussed the skills the paramedic utilized in the field. Eighty-eight and nine tenths percent of the nurses, expressed that they disagreed that paramedics performed unnecessary skills in the field (Item 14), indicating that they have an understanding of the requirements of necessary field treatments. The same question for the paramedics was worded to determine if the group felt nurses understood the performance of field skills. A large percentage of paramedics (62.5%) felt that nurses considered skills they perform in the field as unnecessary.

Item 16 asked both samples if the paramedics were trained well enough to perform the skills they perform in the field. Nurses again stated that they felt the training of paramedics was sufficient to perform the required skills ( 88.9%). The paramedics were asked if they felt that they were trained well and all responded with agreement. The paramedic's perception of the nurse's responses provided evidence that this hypothesis is also supported. Lack of understanding of the nurse's perceptions and the resulting attitudes are what provided the conflict in this hypothesis.

#### Analysis of Communication

Communication issues were addressed in items 7, 8, 9, 10, & 11. Item 7 addressed telephone and radio communications. Both groups agreed that they were attentive to radio or telephone communications; the paramedics had a 62.5% response of strongly agree, and the nurses a 77.8% response. Item 8 examined the potential of both subjects withholding information until they could speak directly with a doctor. All again



agreed that this was not a usual practice. The paramedics did have a 37.5% response that they felt this did occur on occasion (see Table 7). The next item, 9, related that radio communication influenced face to face communication. The nurses were asked in relationship to the paramedics and the paramedics were asked in relationship to the nurses. The results of this question indicated that the nurses felt that this was an issue (see Table 8). The paramedics had 75% agreement that they were influenced in face to face communication by what took place on the radio. The next item asked both groups if they felt the paramedic rushed through a report so that they could take the next call. Paramedics had an 87.5% response that this was not true. Of the nurses, 88.9% responded that it was also not true. One nurse agreed, and one paramedic was undecided.

Finally, item 11 addressed the question of respect being reflected in each others communication. This issue resulted in several responses with paramedics agreeing 75% that respect existed and nurses agreeing 55.5% (see Table 9).

After removal of items 8,12, 13, 14 and 15, the nurse's alpha improved to .70 and the paramedics increased to .74. These alphas indicated acceptable reliability of the remaining items. Frequencies, Chi-Square Tests, and Nonparametric (par.) Tests were performed on questions 7 through 17, as a matter of interest; the results are listed in Appendix E.

The standard deviations were examined for both studies and it was discovered that the pilot study had higher standard deviations for each item than did the primary study group. This is evidence that the answers of the primary study group had more

similarity of scores. This could have also affected the resulting alphas (Munro, Visintainer, & Page, 1986, p. 50-52).

Table 7

Nurse and Paramedic Responses Indicating if the Nurse or Paramedic Wait Until They Can Speak with a Doctor.

Answer	Percent	Total #
Nurses		
Disagree	33.3	3
Strongly Disagree	66.7	6
Paramedics		
Agree	37.5	3
Undecided	37.5	3
Disagree	25	2

Note: Item 8: Does the nurse or paramedic withhold information until they can speak with a doctor?

Table 8

Nurse Responses Indicating if the Nurses Feel That Radio Communication Influences

Face to Face Communication.

Answer	Percent	Total #
<hr/>		
Nurses		
Strongly agree	22.2	2
Agree	55.6	5
Disagree	11.1	1
Strongly Disagree	11.1	1
<hr/>		

Note: Item 9: Radio communication with paramedics influences face to face communication at the hospital.

Table 9

Nurse and Paramedic Responses Indicating if Communications Reflect Respect.

Answer	Percent	Total #
Nurses		
Strongly Agree	22.2	2
Agree	33.3	3
Undecided	11.1	1
Disagree	33.3	3
Paramedics		
Strongly Agree	25	2
Agree	50	4
Disagree	25	2

Note: Item 11: Generally, communications between nurses and paramedics reflect respect for each other's abilities.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to develop a tool to examine the conflicts that can occur between emergency department nurses and paramedics, then to study the differences in relationships as they occur related to a paid paramedic versus a volunteer paramedic. Hypotheses were formed expressing that nurses working in the emergency department and paramedics working in the field would express that conflict occurs between each group because of a lack of understanding of each others training or job focuses. Both of these hypotheses were supported by both the pilot study and the primary study groups.

Two of the properties of conflict described by Mack & Snyder (1957/1971) are present here: Conflict requires opposing actions and counteraction-the differences in patient perspective leading to different concentrations of care, and Communication, perception, attitudes toward one another, and task orientation all affect conflict-both the perceptions of educational background and the differences in task orientation resulting from the patient perspectives. Glennon (1985), Katzman and Roberts (1988), and Mallory (1985) all described difference in perspective, overlapping roles, and role definitions as reasons for conflict occurring. The responses of the study support the literature of Berko, Wolvin, and Berko (1992) indicating that there is verbal and nonverbal feed back and that the communication between these two groups is multidirectional. The Transaction Model is supported because it too, exhibits

multidirectional communication. The Palmer and Gonsoulin (1991) study on communication is validated here by the responses that indicate that nurses and paramedics have different perceptions of the components of communication. The quality of the message and the feedback received have been stated as having a large effect on communication. In this study, both groups agree that the messages received by radio effect the face to face communication that takes place in the emergency department.

The degree of conflict present was measured utilizing a summation scale developed by the researcher for this purpose. Both studies indicated that each group had misunderstandings about each others training, job focus, and perceptions. Descriptive statistics were obtained and provided the researcher with a means of comparison for both groups.

The pilot study had a higher standard deviation on items 7 through 17, than the primary study. Items 8, 13, 14, & 15 on the primary study were discovered to have low alphas. Item twelve was discarded due to a typing error. It was determined that the tool would need item revisions to make it more applicable to the national level of study subjects.

### Conclusions

The conflict that occurs between nurses and paramedics in the emergency department setting can be measured using a summation scale. The scale would need revisions to enable it to be more effective in the national study group arena. Both the pilot study and the primary study provided evidence that a summated rating scale could

be utilized to measure communication and conflict. Rewriting of questions 8, 12, 13, 14, & 15 would be necessary to remove the local bias and provide a more general addressing of the issues. The questionnaire could be enhanced to include more questions on conflict that occurs between these two groups. This would provide more data on potential conflict and improve the ability to draw conclusions. A separate questionnaire for communication and then conflict would allow better statistical analysis of the relationships between these two issues. T-tests and other statistical analysis could then be performed.

There is conflict that exists between nurses and paramedics due to lack of understanding of each other's educational background, job focus, and perceptions. The differences of opinion on the perspective of patient care and the focus of the paramedic in the field setting provided evidence of this type of conflict. Perceptions of both of these groups were found to be that there is limited knowledge of each other's educational background and training. This could be decreased with requirements of mutual education, promoting understanding of patient care focus, exposure to each others working environment, and classes on improving communication.

Paramedics in both studies had a slightly higher conflict score than did the nurses. Both groups in both studies agreed that paramedics and nurses view patient care from different perspectives. The literature offers some explanation of this phenomena by showing the emphasis of "the event", that is taught to the paramedic and the holistic treatment concept that is taught to the nurses. Environment may also have a large effect



on this area of perception. The nurse is in a controlled environment where every needed amenity is available and the paramedic in the field has limited resources and must use whatever is available to him. Both groups felt that the skills that paramedics perform in the field are necessary but the primary study indicated that two of the paramedics perceived that the nurses felt they performed unnecessary skills. This area of perception could easily increase the conflict scores for paramedics and show the importance of communication between both groups.

There is little difference between conflict scores of paid paramedics and those of volunteer paramedics. This issue appears to be more prevalent in the local area than they are nation wide. The next study could concentrate on volunteer only paramedics instead of those who perform both functions. The questionnaires could be given to members of both groups and the demographic data could include another category for paramedics that are both volunteer and paid. Again, better education and improved communication could eliminate most of the problems.

There needs to be the development of two separate questionnaires of at least 20 items to measure conflict and communication. The questionnaires need to be disseminated using a computer on-line service but the research could be better completed if the researcher examined the use of the list server system. There are lists of people with certain interests that are accumulated and the members converse using the E-mail system. These types of lists would alleviate the problems of minimal response and provide a method for the researcher to obtain subjects that are interested in the topic of study.

More time needs to be permitted to complete the study. A time frame of at least three months is necessary to complete the data accumulation. Not all people using computers check their mail each day, so the researcher would need to allow at least two to four weeks for the subjects to get the questionnaires by E-mail. This study needs to be performed using at least 100 subjects. The small alpha's would be greatly improved with a larger sample size. The homogeneity would also be altered if there were large study groups.

Communication does need to increase between these two groups. Both studies provided evidence that the groups have similar beliefs in the areas of communication, but they do not communicate this to each other. This leads to misconceptions and misunderstandings that can increase the conflict that occurs. Respect for each other was an issue that both groups responded positively about. Education and training in actual communication techniques would improve each group's ability to encode and decode the messages. They need to learn to talk with each other and not just to each other.

#### Recommendations

1. This study needs to be repeated on a larger study population.
2. The questionnaire needs to have items 8, 13, 14, & 15 rewritten in a format that is more generic to a national study population.
3. The study needs to be repeated on a computer service allowing one to two months for responses.
4. There needs to be two separate questionnaires for communication and

conflict so that T-tests and other correlations could be performed. This would improve the results and provide stronger statistics.

5. There should be another study developed that examines the issues of paramedics working in the emergency department. This study should examine the issues of delegation of responsibilities by nurses to unlicensed personnel.

### Summary

The purpose of this study was to examine the conflict and communication that occurs between paramedics and nurses in an emergency department. It was hypothesized that nurses that work in an emergency department, and paramedics that bring patients into that department, would express that conflict occurs because each group does not understand the training or job focus of the other group.

Two studies were done utilizing a questionnaire that was developed by the researcher using questions from a study of Palmer and Gonsolin (1991), suggestions from professionals in the field, and the researcher's own field experiences. The tool was tested using Cronbach's coefficient alpha. The pilot study tool scored alphas of .5 for the nurse's questionnaire and .86 for the paramedic's questionnaire. The researcher clarified questions, and during the final study removed questions to obtain alphas of .70 and .74. These alphas provided evidence of the reliability of the tool.

Two hypotheses were developed to examine the question of conflict and

communication. Both of the hypotheses were supported.

The responses of both groups indicated that education about each other's educational background and patient care focus would greatly improve the communication between the groups. The mean score for nurses as an indication of the degree of conflict was 24.4 and the mean score for paramedics was 26.5. These scores indicated that paramedics have a minimally higher conflict score than the nurses, with the lowest possible score on the questionnaire equaling 11 and the scores over 22 indicating conflict was present. The research responses of both studies supported the hypotheses and statistics provided evidence that the questionnaire was valid.

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## Appendix A



Date \_\_\_\_\_  
Place \_\_\_\_\_  
Interviewer \_\_\_\_\_

INTERVIEW SCHEDULE (nurses)

1. Age \_\_\_\_\_
2. Sex \_\_\_\_\_
3. Exact Work Title \_\_\_\_\_
4. Training/Educational Background  
Associate Degree \_\_\_\_\_  
Diploma \_\_\_\_\_  
BSN \_\_\_\_\_  
Higher Degree \_\_\_\_\_
5. Shift Worked  
7-3 \_\_\_\_\_ 3-11 \_\_\_\_\_ 11-7 \_\_\_\_\_ Rotating shift \_\_\_\_\_ Other \_\_\_\_\_
6. How long have you been a nurse?
7. On the average, how often do you communicate with paramedics during your work day?
8. What percentage of time would you estimate that paramedics communicate patient information directly to you (rather than to a physician) while enroute to the hospital?
9. What percentage of the time would you estimate you take action based on the paramedics radio communication?
10. Can you recall specific incidents where miscommunication directly affected patient care?
11. Does trouble ever arise regarding the "kind" of patient paramedics bring to the Emergency Department?

COMMUNICATION INDEX

1. I am usually attentive to telephone or radio communication.  
strongly agree   agree   undecided   disagree   strongly disagree
2. I generally trust the accuracy of paramedics' reports.  
strongly agree   agree   undecided   disagree   strongly disagree
3. Paramedics withhold information until they can speak directly with the doctor.  
always   usually   sometimes   seldom   never
4. Radio communication with the paramedic influences face to face communication at the hospital.  
strongly agree   agree   undecided   disagree   strongly disagree
5. My communication with the paramedic is influenced by his/her tone of voice.  
strongly agree   agree   undecided   disagree   strongly disagree
6. My communication with the paramedic is influenced by the volume of his/her voice.  
strongly agree   agree   undecided   disagree   strongly disagree
7. My communication with the paramedic is influenced by the amount of eye contact maintained.  
strongly agree   agree   undecided   disagree   strongly disagree
8. My communication with the paramedic is influenced by his/her proximity to me when receiving the patient report.  
strongly agree   agree   undecided   disagree   strongly disagree
9. The paramedics body language influences my communication with him/her.  
strongly agree   agree   undecided   disagree   strongly disagree

Nurse sheet - 2

10. Paramedics rush through report in order to be "clear" for the next call.

always          usually          sometimes          seldom          never

11. I "rush" paramedics to complete their report and leave the Emergency Department.

always          usually          sometimes          seldom          never

12. Generally, communications between nurses and paramedics reflect respect for each other's abilities.

strongly agree   agree   undecided   disagree   strongly disagree

13. Overall, communication between nurses and paramedics is:

Excellent          Good          Fair          Poor          Very Poor

14. Is there anything you feel we should have asked in the interview that we did not?

Date \_\_\_\_\_  
Place \_\_\_\_\_  
Interviewer \_\_\_\_\_

INTERVIEW SCHEDULE (paramedics)

1. Age \_\_\_\_\_
2. Sex \_\_\_\_\_
3. Exact Work Title \_\_\_\_\_
4. Training/Educational Background  
Associate Degree \_\_\_\_\_  
Diploma \_\_\_\_\_  
BSN \_\_\_\_\_  
Higher Degree \_\_\_\_\_
5. Shift worked \_\_\_\_\_
6. How long have you been a paramedic?
7. On the average, how often do you communicate with nurses during your work day?
8. What percentage of time would you estimate that you communicate patient information directly to a nurse (rather than to the physician) while enroute to the hospital?
9. What percentage of the time would you estimate the nurse takes action based on your radio communication?
10. Can you recall specific incidents where miscommunication directly affected patient care?
11. Does trouble ever arise regarding the "kind" of patient you bring to the Emergency Department?

Paramedic Sheet-1

1. Nurses are attentive to telephone or radio communication.  
strongly agree   agree   undecided   disagree   strongly disagree
2. Nurses generally trust the accuracy of my reports.  
strongly agree   agree   undecided   disagree   strongly disagree
3. I withhold information until I can speak directly with the doctor.  
always   usually   sometimes   seldom   never
4. Radio communication with the nurse influences face to face communication at the hospital.  
strongly agree   agree   undecided   disagree   strongly disagree
5. My communication with the nurse is influenced by his/her tone of voice.  
strongly agree   agree   undecided   disagree   strongly disagree
6. My communication with the nurse is influenced by the volume of his/her voice.  
strongly agree   agree   undecided   disagree   strongly disagree
7. My communication with the nurse is influenced by the amount of eye contact maintained.  
strongly agree   agree   undecided   disagree   strongly disagree
8. My communication with the nurse is influenced by his/her proximity to me during the time I am giving the report on the patient.  
strongly agree   agree   undecided   disagree   strongly disagree
9. The nurse's body language influences my communication with him/her.  
strongly agree   agree   undecided   disagree   strongly disagree
10. I rush through report in order to be "clear" for the next call.  
always   usually   sometimes   seldom   never

Paramedics Sheet-2

11. Nurses "rush" me to complete my patient report and leave the Emergency Department.

always      usually      sometimes      seldom      never

12. Generally, communications between nurses and paramedics reflect respect for each other's abilities.

strongly agree    agree    undecided    disagree    strongly disagree

13. Overall, communication between nurses and paramedics is:

Excellent      Good      Fair      Poor      Very Poor

14. Is there anything you feel we should have asked in the interview that we did not?

Appendix B

September 9, 1996

Dear Nursing Professional:

A study is being undertaken with the purpose of studying the communication and conflict that exists between Emergency Room/Department nurses and paramedics. By filling out the following questionnaire, you are consenting to participate in a pilot of this study. All information will remain confidential and will be used for statistical purposes only.

Please complete the questionnaire and return it to the manila envelope, located at Salisbury Fire Dept. Headquarters by Sunday, September 15, 1996. The envelope will have Joe Perdue's name on it and he will bring the questionnaires to me. The questionnaire is not labeled in any way so that your anonymity is guaranteed. Comments on the questions, clarity, and issues can be written on the back of the questionnaires.

A full study will be conducted online by computer later this month. If you are interested in results, I will be glad to provide them. Please let me know by calling me at 546-2538 and I will send you results.

Thank you for your participation.

Georgia Perdue RN, BSN, CRT



### Questionnaire For Nurses

1. Sex \_\_\_\_\_
2. Exact work title \_\_\_\_\_ License \_\_\_\_\_
3. Training/Educational Background  
Associate Degree \_\_\_\_\_  
Diploma \_\_\_\_\_  
Bachelors \_\_\_\_\_  
Higher Degree \_\_\_\_\_
4. How long have you been a nurse? \_\_\_\_\_
5. Are you a paramedic? \_\_\_\_\_
6. If you are a Nurse, are you a :  
Manager \_\_\_\_\_  
Staff \_\_\_\_\_
7. I am usually attentive to telephone or radio communication.  
  
strongly agree agree undecided disagree strongly disagree
8. Paramedics withhold information until they can speak directly with a doctor.  
  
strongly agree agree undecided disagree strongly disagree
9. Radio communication with the paramedic influences face to face communication at the hospital.  
  
strongly agree agree undecided disagree strongly disagree
10. The paramedic rushes through report in order to be "clear" for the next call.  
  
strongly agree agree undecided disagree strongly disagree
11. Generally, communications between nurses and paramedics reflect respect for each other's abilities.  
  
strongly agree agree undecided disagree strongly disagree
12. Usually, paramedics understand the educational background of the nurses.

**Questionnaire continued**

strongly agree   agree   undecided   disagree   strongly disagree

13.   Nurses and paramedics view patient care from two different perspectives.

strongly agree   agree   undecided   disagree   strongly disagree

14.   Paramedics perform skills in the field that I consider unnecessary just to have the  
“numbers”.

strongly agree   agree   undecided   disagree   strongly disagree

15.   I am usually aware of the educational background of the paramedic I am  
communicating with.

strongly agree   agree   undecided   disagree   strongly disagree

16.   I feel that the paramedics are not trained well enough to perform the skills they perform  
in the field.

strongly agree   agree   undecided   disagree   strongly disagree

17.   With the current health care changes, I consider paramedics taking up employment  
spaces if they work in the Emergency Department.

strongly agree   agree   undecided   disagree   strongly disagree

September 9, 1996

Dear EMS Professional:

A study is being undertaken with the purpose of studying the communication and conflict that exists between Emergency Room/Department nurses and paramedics. By filling out the following questionnaire, you are consenting to participate in a pilot of this study. All information will remain confidential and will be used for statistical purposes only.

Please complete the questionnaire and return it to the manila envelope, located at Salisbury Fire Dept. Headquarters by Sunday, September 15, 1996. The envelope will have Joe Perdue's name on it and he will bring the questionnaires to me. The questionnaire is not labeled in any way so that your anonymity is guaranteed. Comments on the questions, clarity, and issues can be written on the back of the questionnaires.

A full study will be conducted online by computer later this month. If you are interested in results, I will be glad to provide them. Please let me know by calling me at 546-2538 and I will send you results.

Thank you for your participation.

Georgia Perdue RN, BSN, CRT

### **Questionnaire For Paramedics**

1. Sex \_\_\_\_\_
2. Exact work title \_\_\_\_\_
3. Training/Educational Background  
Associate Degree \_\_\_\_\_  
Diploma \_\_\_\_\_  
Bachelors \_\_\_\_\_  
Higher Degree \_\_\_\_\_
4. How long have you been a paramedic? \_\_\_\_\_
5. Are you a nurse? \_\_\_\_\_
6. If you are a paramedic, are you a :  
Volunteer \_\_\_\_\_  
Paid \_\_\_\_\_
7. I am usually attentive to telephone or radio communication.  
  
strongly agree agree undecided disagree strongly disagree
8. Nurses withhold information until they can speak directly with a doctor.  
  
strongly agree agree undecided disagree strongly disagree
9. Radio communication with the Nurses influences face to face communication at the hospital.  
  
strongly agree agree undecided disagree strongly disagree
10. I usually rush through report in order to be "clear" for the next call.  
  
strongly agree agree undecided disagree strongly disagree
11. Generally, communications between nurses and paramedics reflect respect for each other's abilities.  
  
strongly agree agree undecided disagree strongly disagree
12. Usually, nurses understand the educational background of the paramedics.

**Questionnaire continued**

strongly agree agree undecided disagree strongly disagree

13. Nurses and paramedics view patient care from two different perspectives.

strongly agree agree undecided disagree strongly disagree

14. I sometimes perform skills in the field that nurses consider unnecessary just to have the “numbers”.

strongly agree agree undecided disagree strongly disagree

15. I am usually aware of the educational background of the nurse I am communicating with.

strongly agree agree undecided disagree strongly disagree

16. I feel that the paramedics are trained well enough to perform the skills they perform in the field.

strongly agree agree undecided disagree strongly disagree

17. With the current health care changes, I feel paramedics have a place working in the Emergency Department.

strongly agree agree undecided disagree strongly disagree

### Appendix C

Means for Pilot Study

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Paramedics	
Item	Mean
<hr/>	
Seven	1.41
Eight	1.50
Nine	.50
Ten	.00
Eleven	1.50
Twelve	.00
Thirteen	1.73
Fourteen	1.26
Fifteen	1.00
Sixteen	1.26
Seventeen	1.29

---

Nurses	
Item	Mean
Seven	.55
Eight	.55
Nine	.45
Ten	.55
Eleven	.55
Twelve	1.34
Thirteen	1.64
Fourteen	1.14
Fifteen	.84
Sixteen	.55
Seventeen	1.14



Appendix D

Dear EMS professional,

I am completing a study to finish my masters that examines the communication and conflict that exists between ER nurses and paramedics. By answering the following questionnaire, you are consenting to participate in this study. All info remains confidential and is to be used for statistics only. Please answer the questionnaire, questions 7-17 can be answered using 1 for strongly agree, 2-agree, 3-undecided, 4-disagree, and 5-strongly disagree. The first 6 questions are for stats and relationship purposes so fill those out.

The questionnaire is not labled in any way so your answers are anonymous. Please let me know if you wish a copy of results by emailing me at Georg665 after November 1st.

THE QUESTIONNAIRE MUST BE SENT BACK TO ME BY 10/15/96.....

Thanks for your time and please take answer,  
Georgia Perdue, R.N., CRT-MD

### Questionnaire For Paramedics

- 1 Sex\_\_\_\_\_
- 2 Exact work title\_\_\_\_\_ State\_\_\_\_\_
- 3 Training/Educational Background  
\_\_\_\_Assoc Degree  
\_\_\_\_Diploma  
\_\_\_\_Bachelors  
\_\_\_\_Higher Degree
- 4 How long have you been a paramedic\_\_\_\_\_
- 5 Are you a nurse\_\_\_\_\_
- 6 Are you a :  
Volunteer\_\_\_\_\_  
Paid\_\_\_\_\_

The following can be answered with 1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

- 7 I am usually attentive to telephone or radio communications.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 8 Nurses withhold information until they can speak directly with a doctor.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 9 Radio communication with the nurses influences face to face communication at the hospital.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 10 I usually rush through report in order to be able to take the next "call" as soon as possible.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 11 Generally, communications between nurses and paramedics reflect respect for each other's abilities.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 12 Usually, nurses understand the educational background of the nurses

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

13 Nurses and paramedics view patient care from two different perspective.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

14 I perform skills in the field that nurses consider unnecessary.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

15 I am usually aware of the educational background of the nurse I am communicating with.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

16 I feel that the paramedics are trained well enough to perform the skills they perform in the field.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

17 With the current health care changes, I feel paramedics have a place working in the Emergency Dept.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

Dear nursing professional,

I am completing a study to finish my masters that examines the communication and conflict that exists between ER nurses and paramedics. By answering the following questionnaire, you are consenting to participate in this study. All info remains confidential and is to be used for statistics only. Please answer the questionnaire, questions 7-17 can be answered using 1 for strongly agree, 2-agree, 3-undecided, 4-disagree, and 5-strongly disagree. The first 6 questions are for stats and relationship purposes so fill those out.

The questionnaire is not labled in any way so your answers are anonymous. Please let me know if you wish a copy of results by emailing me at Georg665 after November 1st.

THE QUESTIONNAIRE MUST BE SENT BACK TO ME BY 10/15/96.....

Thanks for your time and please take answer,  
Georgia Perdue, R.N., CRT-MD

### Questionnaire For Nurses

- 1 Sex\_\_\_\_
- 2 Exact work title\_\_\_\_\_ License\_\_\_\_\_
- 3 Training/Educational Background  
\_\_\_\_Assoc Degree  
\_\_\_\_Diploma  
\_\_\_\_Bachelors  
\_\_\_\_Higher Degree
- 4 How long have you been a nurse\_\_\_\_\_
- 5 Are you a paramedic\_\_\_\_\_
- 6 Are you a :  
Manager\_\_\_\_\_  
Staff nurse\_\_\_\_\_

The following can be answered with 1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

- 7 I am usually attentive to telephone or radio communications.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 8 Paramedics withhold information until they can speak directly with a doctor.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 9 Radio communication with the paramedic influences face to face communication at the hospital.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 10 The paramedic rushes through report in order to be able to take the next "call" as soon as possible.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 11 Generally, communications between nurses and paramedics reflect respect for each other's abilities.  
1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...
- 12 Usually, paramedics understand the educational background of the nurses.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

13 Nurses and paramedics view patient care from two different perspective.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

14 Paramedics perform skills in the field that I consider unnecessary, just to have the number of required skills completed.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

15 I am usually aware of the educational background of the paramedic I am communicating with.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

16 I feel that the paramedics are not trained well enough to perform the skills they perform in the field.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

17 With the current health care changes, I consider paramedicst to be taking up employment spaces if they work in the Emergency Dept.

1-strongly agree, 2-agree, 3-undecided, 4-disagree, 5-strongly disagree...

Appendix E

## NPar Tests

### Chi-Square Test

NURSES

### Frequencies

#### EGHT

	Observed N	Expected N	Residual
STRONGLY DISAGREE	6	4.5	1.5
DISAGREE	3	4.5	-1.5
Total	9		

#### ELVN

	Observed N	Expected N	Residual
STRONGLY AGREE	2	2.3	-.3
AGREE	3	2.3	.8
UNDECIDED	1	2.3	-1.3
DISAGREE	3	2.3	.8
Total	9		

#### FIFTN

	Observed N	Expected N	Residual
STRONGLY AGREE	1	3.0	-2.0
AGREE	6	3.0	3.0
DISAGREE	2	3.0	-1.0
Total	9		

#### FORTN

	Observed N	Expected N	Residual
STRONGLY DISAGREE	2	3.0	-1.0
DISAGREE	6	3.0	3.0
STRONGLY AGREE	1	3.0	-2.0
Total	9		

**NINE**

	Observed N	Expected N	Residual
STRONGLY AGREE	2	2.3	-.3
AGREE	5	2.3	2.8
DISAGREE	1	2.3	-1.3
STRONGLY DISAGREE	1	2.3	-1.3
Total	9		

**SIXTN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	2	3.0	-1.0
DISAGREE	6	3.0	3.0
UNDECIDED	1	3.0	-2.0
Total	9		

**SVN**

	Observed N	Expected N	Residual
STRONGLY AGREE	7	4.5	2.5
AGREE	2	4.5	-2.5
Total	9		

**SVNTN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	4	1.8	2.2
DISAGREE	2	1.8	.2
UNDECIDED	1	1.8	-.8
AGREE	1	1.8	-.8
STRONGLY AGREE	1	1.8	-.8
Total	9		

**TEN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	3	3.0	.0
DISAGREE	5	3.0	2.0
AGREE	1	3.0	-2.0
Total	9		



**THIRTN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	1	3.0	-2.0
AGREE	5	3.0	2.0
STRONGLY AGREE	3	3.0	.0
Total	9		

**TWLV**

	Observed N	Expected N	Residual
STRONGLY AGREE	2	2.3	-.3
AGREE	4	2.3	1.8
DISAGREE	2	2.3	-.3
STRONGLY DISAGREE	1	2.3	-1.3
Total	9		

**Test Statistics**

	EGHT	ELVN	FIFTN	FORTN	NINE	SIXTN	SVN	SVNTN	TEN
Chi-Square <sup>a</sup> .	1.000	1.222	4.667	4.667	4.778	4.667	2.778	3.778	2.667
df	1	3	2	2	3	2	1	4	2
Asymp. Sig.	.317	.748	.097	.097	.189	.097	.096	.437	.264

**Test Statistics**

	THIRTN	TWLV
Chi-Square <sup>a</sup> .	2.667	2.111
df	2	3
Asymp. Sig.	.264	.550

- 2 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 4.5.
- 4 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.3.
- 3 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 3.0.
- 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.8.

# NPar Tests

## Chi-Square Test *PARAMEDICS*

### Frequencies

#### EIGHT

	Observed N	Expected N	Residual
DISAGREE	2	2.7	-.7
UNDECIDED	3	2.7	.3
AGREE	3	2.7	.3
Total	8		

#### ELVN

	Observed N	Expected N	Residual
STRONGLY AGREE	2	2.7	-.7
AGREE	4	2.7	1.3
DISAGREE	2	2.7	-.7
Total	8		

#### FRTEEN

	Observed N	Expected N	Residual
DISAGREE	2	2.0	.0
UNDECIDED	1	2.0	-1.0
AGREE	3	2.0	1.0
STRONGLY AGREE	2	2.0	.0
Total	8		

#### FIFTN

	Observed N	Expected N	Residual
STRONGLY AGREE	1	2.0	-1.0
AGREE	3	2.0	1.0
UNDECIDED	1	2.0	-1.0
DISAGREE	3	2.0	1.0
Total	8		

**NINE**

	Observed N	Expected N	Residual
STRONGLY AGREE	3	2.7	.3
AGREE	3	2.7	.3
DISAGREE	2	2.7	-.7
Total	8		

**SEVN**

	Observed N	Expected N	Residual
STRONGLY AGREE	5	4.0	1.0
AGREE	3	4.0	-1.0
Total	8		

**SIXTN**

	Observed N	Expected N	Residual
STRONGLY AGREE	3	4.0	-1.0
AGREE	5	4.0	1.0
Total	8		

**SVNTN**

	Observed N	Expected N	Residual
STRONGLY AGREE	4	4.0	.0
AGREE	4	4.0	.0
Total	8		

**TEN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	3	2.7	.3
DISAGREE	4	2.7	1.3
UNDECIDED	1	2.7	-1.7
Total	8		

**THIRTN**

	Observed N	Expected N	Residual
STRONGLY DISAGREE	1	1.6	-.6
DISAGREE	1	1.6	-.6
UNDECIDED	1	1.6	-.6
AGREE	1	1.6	-.6
STRONGLY AGREE	4	1.6	2.4
Total	8		

**TWLVE**

	Observed N	Expected N	Residual
AGREE	2	2.7	-.7
UNDECIDED	3	2.7	.3
DISAGREE	3	2.7	.3
Total	8		

**Test Statistics**

	EIGHT	ELVN	FRTEEN	FIFTN	NINE	SEVN	SIXTN	SVNTN	TEN
Chi-Square <sup>a</sup> ,	.250	1.000	1.000	2.000	.250	.500	.500	.000	1.750
df	2	2	3	3	2	1	1	1	2
Asymp. Sig.	.882	.607	.801	.572	.882	.480	.480	1.000	.417

**Test Statistics**

	THIRTN	TWLVE
Chi-Square <sup>a</sup> ,	4.500	.250
df	4	2
Asymp. Sig.	.343	.882

- 3 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.7.
- 4 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.0.
- 2 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 4.0.
- 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.6.

## CURRICULUM VITAE

Name: Georgia Lynne Perdue.

Permanent address: 4505 Pheasant Drive  
Salisbury, Maryland 21804.

Degree and Date to be conferred: Master of Science, 1996.

Date of birth: June 6, 1965.

Place of birth: Warren, Ohio.

Secondary education: Parkside High School,  
Salisbury, Maryland,  
Graduation date: June 1983.

Collegiate institutions attended:

	Date	Degree	Date of Degree
Salisbury State College Salsibury, Maryland	1983-1987	B. S.	December 1987
Salisbury State University Salisbury, Maryland	1991-1993	B. S. N.	June 1993
Salisbury State University Graduate School of Nursing Salisbury, Maryland	1994-1996	M. S.	December 1996

Major: Family Nursing.

Minor: Clinical Specialist.

Professional positions held:

Neuro-Intensive Care Staff Nurse  
University of Maryland Medical Systems  
Baltimore, Maryland.  
June 1993-November 1993

Correctional Staff Nurse  
Prison Health Services  
Eastern Correctional Institution  
Westover, Maryland.  
1993-1994

Correctional Charge Nurse  
Prison Health Services  
Eastern Correctional Institution  
Westover, Maryland.  
1994-1995

Correctional Acting Director of Nursing  
Prison Health Services  
Eastern Correctional Institution  
Westover, Maryland.  
1995-1996

Correctional Regional Health Services Administrator  
Prison Health Services  
Eastern Region  
Eastern Correctional Institution  
Westover, Maryland.  
10/96-present