NURSE ATTITUDES ABOUT QUALITY ASSURANCE

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF SCIENCE

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY

MARGARET A. FOX, B.S., R.N.

DENTON, TEXAS

DECEMBER 1980

ACKNOWLEDGEMENTS

Special thanks should be extended to my mother and my roommate, Cathy, who put up with me while I completed this thesis.

To all my thesis committee members, but especially to Dr. Helen Bush who agreed to serve at the last minute. Special thanks are also extended to my committee chairman, Pat Kurtz, whose seemingly endless revisions helped make this thesis the quality product that it is.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
Chapter	
1. INTRODUCTION	. 3 . 10 . 14 . 15 . 17 . 19
3. PROCEDURE FOR COLLECTION AND TREATMENT OF DATA	38383940
4. ANALYSIS OF DATA	. 46

																							Page
]		Ind	di	vi	du	al	Qt	ıe:	st	ioi	nna	ai	re					
]	Des	sci	ri	pt.	io		эf	Re	es	201	nse	es	to	2	•	•	•	54
			Т	es	t (:	Ite	em:	s	(Pa	al art ses	t I								•	•	•	58
						Hyp	ood	the	es t	es Qua	Re al:	ega ity	Z	Ass	sui	car	nce	e :		es			
					1	НУІ	pot	the	es	es	Pa Re Spe	ega	arc	liı	ng	At	tt:	įtı	ade	· es	•	•	63
			Δ	dd.	i + ·	2	Ass	su	ra	nce	e I	Pro	ogi	car	n	(Pa	art	t I				•	69 75
				um																•	•	•	79
5.	St	JMM		Y (•	•	•	•	•	•	•	•	•	•	•	82 84
				is								· Fir	· nas	•	•	•	•	•	•	•	•	•	86
				on															:	•	:	:	90
				ec								-											
				S	tu	цĹ	•	•	•	•	•	•	•	•	٠	•	•	•	٠	•	•	•	91
APPENDIX	A	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	93
APPENDIX	В	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•	100
APPENDIX	С	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠.	•	104
APPENDIX	D	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	106
APPENDIX	E		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	109
REFERENCE	īS.	СТ	ظيل	ח	_					_		_					_						112

LIST OF TABLES

Table		Page
1.	Sample by Variables of Age, Educational Level, and Years of Experience	47
2.	Sample by Unit Score and Knowledge of Unit Score	48
3.	Frequency Distribution, Mean, Median, Mode, and Standard Deviation and Range of Test Scores for Total Sample for Part A	50
4.	Frequency Distribution, Mean, Median, Mode, and Standard Deviation and Range of Test Scores for Total	
_	Sample for Part B	51
5.	Mean Attitude Scores for Four Groups According to Type of Unit Medicus Rating and Knowledge of Unit Quality	
_	Assurance Score · · · · · · · · · · · · · · · · · · ·	53
6.	Frequency of Response to Items by Level of Agreement Categories (Part A)	55
7.	Frequency of Response to Items by Level	59
8.	of Agreement Categories (Part B) Group and Marginal Mean Attitude Toward Quality Assurance in General (Part A)	59
	Related to Patient Unit Quality	
	Assurance Score and Knowledge of	
9.	Patient Unit Score	65
7.0	Test of Hypotheses 1, 2, and 3	66
10.	Group and Marginal Mean Attitude Toward Quality Assurance Specifically (Part B) Related to Patient Unit Quality Assurance Score and Knowledge of	
	Patient Unit Score	71
11.	Analysis of Variance Summary Table for Test of Hypotheses 4, 5, and 6	72
12.	Descriptive Statistics for the Attitude Toward Quality Assurance (General)	
13.	According to Age Category	. 77
	Attitudes (General) by Five Levels	. 78

LIST OF FIGURES

Figure		Page
1.	Graph showing mean scores on Quality Assurance Opinionnaire, Part A, for four groups of subjects	. 68
2.	Graph showing mean scores on Quality Assurance Opinionnaire, Part B, for four groups of subjects	. 74

CHAPTER 1

INTRODUCTION

Quality is a term that has been used to denote the excellence of a product, and a quality product is one in which a high level of excellence has been achieved. Both quality and quality assurance are terms that have made an appearance in the field of nursing. Leaders in the nursing profession are interested in quality assurance and have established standards of care, finding methods to measure whether these standards are met, documenting the quality of care given, as well as devising methods to improve care if it does not meet the established standards.

Despite recognition of the importance of quality assurance on the part of nurse leaders, the impetus to evaluate the care that nurses give has not come from within the nursing profession. The federal government has begun to demand evidence that care has been provided to clients and that his care is effective before providers are reimbursed. In addition, and perhaps more importantly, the health care consumer has higher expectations for both the quantity and the quality of life. Consistent with these expectations, the consumer has begun to demand

evidence that with the high cost of medical care, he is receiving the best possible care. In a climate such as this, quality assurance programs represent a chance for the nursing profession to validate both its existence and the value of its contribution to health care.

Tools for evaluating nursing care quality are many and varied. Some of the tools which have been developed look at care while the patient is hospitalized, and the care is actually being given. Other tools for audit examine the end product of the care given, after the patient is discharged. All of the tools for evaluation of care have one basic purpose, to measure the care that a patient receives in order to determine whether it meets pre-established standards.

In spite of the fact that the use of tools for evaluating nursing care quality is increasing, little attempt has been made to determine how nurses themselves feel about evaluation of the nursing care that they provide. Since quality assurance programs are essentially peer review of the care provided by individual nurses and require the nurses' active participation, their reactions, feelings, and attitudes are relevant. Because the nurses are actively participating, it is assumed that the results of review of care, or quality assurance, will have an

effect on the individual nurses; however, feedback concerning the specific effect is not known. Determining such effects and related attitudes toward quality assurance is an issue for investigation.

Problem of Study

The problem of this study was to determine if the evaluated level of care on a particular patient care unit was related to attitudes of nurses on the unit toward a quality assurance program.

Justification of Problem

A natural outcome of public dissatisfaction and the nationwide demand for change in the whole field of health care is that each profession faces the need to establish its value in terms of quality, availability, and cost (Nicholls, 1974). Nicholls (1974) went on to state that nursing literature is filled with articles describing attempts to define the role of nurses more clearly and to provide both reliable and valid tools to measure what nurses do, and the quality of the care they provide.

According to Abdellah (1973), quality assurance programs could be classified as adaptive changes required for the survival of nursing. Ramey (1973) saw quality assurance more in terms of productivity and emphasized that it

was a necessary step in helping the nursing profession to monitor its productivity. Mayers (1977) stated that quality assurance is one of the major issues facing the health care industry as a whole, as well as nursing as an individual profession. According to Mayers (1977), to evaluate in credible and effective ways the many intangibles of care is a challenge. Yet according to Mayers (1977), evaluation must be done if consumers and professionals alike are to be satisfied that the very best is being accomplished with the resources available.

Zimmer (1974) stated that assurance of quality is given by implementing systematic evaluation to assure that the care being delivered meets the optimum achievable degree of excellence and by continuously taking action to secure improvements. According to Gold, Jackson, Sachs, and Van Meter (1973) peer review (a form of quality assurance) is increasingly recognized, in nursing and other fields, as a measure of accountability and as a means of evaluating and improving standards of practice. These authors recommended that any group planning peer review should minimize personal threat. The inherent personal threat involved in such a review is great enough to preclude a beneficial experience from peer review.

Kennedy (1961) related that current practice in nursing evaluation is seen as judging or criticizing

The evaluator is viewed as judge and jury. The nurse being evaluated is on trial, and the evaluators are judges as they apply the criteria as a measure of the nursing care given. If quality assurance is to be product oriented; that is, control of the quality of the total nursing care that is received by the patient rather than performance oriented, it must be received by nurses as an integral part of all nursing care (Nicholls, 1974).

Too often, according to Nicholls (1974), evaluation of care is transmitted into agency evaluation of employee performance and for the employees such "quality control" brings forth ideas of restriction, limitations, punishment, and even coercion.

In spite of the importance of quality assurance as cited by the preceding authors, and the importance stressed by them of minimizing personal threat, ideas of restriction, limitation, and punishment from quality assurance, there are no systematic studies of nurses' attitudes toward quality assurance. In the body of nursing literature there are, however, studies concerning nurses' attitudes toward other items such as performance appraisal,

peer review (related to quality of care review), and continuing education.

Dyer (1972) found that variations in performance, and as a consequence nursing care of patients, can arise from the attributes nurses bring to the work situation. Because nursing performance is associated so closely with the care patients receive, nurses should know the factors which affect the delivery of quality care. Dyer's (1972) study of 200 registered nurses in four Utah hospitals found that important dimensions of on-the-job nursing performance could be predicted at significant levels using personality scales, biographical information, and staff nurse perceptions of administrative climate. Dyer (1972) used the Registered Nurse Biographical Inventory, California Psychological Inventory, Head Nurse Behavior Descriptive Scale, and Nurse Performance Descriptive Scale to collect data. Two of the significant relationships identified were age, which was negatively related to nursing performance, and educational preparation, which was positively related to nursing performance. Although relationships were identified, no specific conclusions were drawn by Dyer (1972). Dyer (1972) did express the assumption, however, that positive and negative views of the nurses about performance appraisal would be helpful

as to the overall goal of the improvement of the quality of care.

Dyer (1975) conducted a second study to increase the knowledge base concerning the relationship of several measures of quality of patient care with nurses' performance, biographical, and personality data. The sample was comprised of 387 staff nurses from 60 medical surgical wards in 7 Veterans Hospitals. All of the subjects completed a Biographical Inventory and the California Psychological Inventory, and were rated in terms of patient care using Qual Pacs, the Veterans' Administration Nursing Care Quality Evaluation, and patient interviews. Each nurse also received performance ratings from supervisors, peers, and subordinates. Low correlations were found between patient care scores and performance scores. Education was positively related with both patient care and nursing performance. The age of the nurse was negatively related to patient care and performance evaluation.

Rosen and Abraham (1966) conducted a study concerned with the attitudes of nurses toward the appraisal system in a Veteran's Hospital. The authors' assumption in conducting the study was that knowledge of nurses' views toward performance appraisal would be helpful to the

acceptance and operation of the appraisal system, as well as to the goal of improving the quality of the nursing care. Data were not available from the article to determine if any variables were significantly correlated.

Median ages and type of education were obtained, but were only given in percentages of the total population.

As stated by the authors, this research did not attempt to establish a direct connection between outcomes of performance appraisal and selected attitudes of the participants toward it.

Larocco and Polit (1978) conducted a study of nurses' attitudes toward mandatory continuing education, and found age, educational level, and years of experience were related to attitude. With respect to age, the researchers found that younger nurses were significantly more likely than older nurses to favor mandatory continuing education. Educational level analysis was restricted to comparing nurses who did or did not have a Bachelor of Science (B.S.) degree and revealed that higher levels of education were correlated with more favorable attitudes toward mandatory continuing education. With respect to years of experience, the researchers found there was a marked tendency for nurses with relatively few years of experience to have a more favorable opinion of mandatory

continuing education. In addition, it was found that nurses' attitudes toward mandatory continuing education were not as favorable as attitudes toward the general concept of continuing education. The authors themselves stated that although there were significant findings in this study, their results must still be considered quite tentative. These authors assumed, as did the authors of previous studies cited, that nurses' attitudes had to be considered important variables to be explored in terms of successful implementation of a continuing education program.

The studies cited previously began the task of exploring and identifying nurse attitudes concerning important issues in the nursing profession. All four of the studies assumed nurse attitudes were important, and that 'these attitudes were related to the variables identified; for example, age, education, and experience. No studies are available identifying what nurses' attitudes are about quality assurance. Exploration of this concept in relation to nurse attitudes is needed to provide a sound foundation for future decisions of the nursing profession. Additionally needed is continued exploration of the variables which may affect nurse attitudes and provide obstacles to initiation and implementation of new ideas and programs. This

study attempted to respond to these needs, and provided a description and exploration of nurses' attitudes concerning quality assurance.

Theoretical Framework

A theorist who may provide an explanation of how nurse attitudes develop and why they are positive or negative in relation to an issue such as quality assurance, is Festinger (1957). Festinger's theory of cognitive dissonance concerns consistency within an individual and between what the individual knows and what he does.

In introducing the theory of cognitive dissonance, Festinger (1957) pointed out that the individual strives toward consistency within himself. The person's opinions and attitudes tend to exist in clusters which are internally consistent and control what he believes and how he acts. Granted that consistency is the usual state of affairs, what about the inevitable exception, when attitudes and/or behaviors are inconsistent? Rarely does the individual psychologically accept things as inconsistent, rather he makes attempts to rationalize them. In this light a person is not always successful in rationalizing inconsistencies; the inconsistencies may continue and the person experiences psychological discomfort. Dissonance,

or the existence of such nonfitting relationships, is a motivating factor in itself, or it can be an antecedent condition which leads to psychological discomfort and activity oriented toward dissonance reduction. This dissonance works in much the same manner as hunger, which is uncomfortable and leads toward activity that is oriented toward hunger reduction.

Festinger's (1957) theory of cognitive dissonance involves two basic assumptions:

- 1. The existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance.
- 2. When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance.

As stated in his definition of terms, Festinger (1957) believed the terms dissonance and consonance referred to relations which existed between pairs of elements. Elements refer to what has been called cognition: things a person knows about himself, about his behavior, and about his surroundings. Other elements of knowledge concern the world in which one lives: what is where, what leads to what, what things are satisfying or painful, and what things are inconsequential or important.

Beliefs, values, and attitudes function as knowledges and all are elements of cognition. If two elements are dissonant with one another, the magnitude of the dissonance will be a result of the importance of the elements. The total amount of dissonance between a particular element and the remainder of the person's cognition will depend on the proportion of relevant elements that are dissonant with the one in question.

The presence of dissonance gives rise to pressures to reduce or eliminate the dissonance. In general, if dissonance exists between two elements, this dissonance can be eliminated by changing one of these elements. Dissonance reduction can be accomplished in two ways: the person might simply change his cognition about the behavior by changing his actions, or the person might change his "knowledge" about the effects of his behavior of the measurement of his behavior.

Utilizing the theory of cognitive dissonance, one might predict that nurses believe they give the best care they possibly can to patients. When a hospital utilizes a quality assurance program, nurses on units with positive quality assurance scores have this belief supported; they are able to maintain consonance and will have a positive attitude about the quality assurance program. If the

quality assurance program does not support the nurses' beliefs that they give good care, and shows inconsistencies, failings, or areas of care needing improvement, according to Festinger's theory, this would create a state of dissonance for the nurses involved. The two elements that would be dissonant are the nurses' opinions of the care given, and the results of a formal evaluation of care. Therefore, according to Festinger's theory, nurses on units with negative scores should exhibit dissonance and make efforts to reduce the dissonance. One manner in which the dissonance could be reduced for these nurses would be for them to change their care of patients. If the nurses improved their care of patient in the areas shown to be weak by the quality assurance program, this would reduce the dissonance present for the nurses.

A second way to reduce the dissonance on the part of these nurses would be the development or exhibition of negative feelings toward the quality assurance program. These nurses may feel that quality assurance in general is valuable, but the specific quality assurance program they are exposed to is not. In other words, rather than admit the need to change or improve the care they provide, nurses may tend to change their attitudes toward the quality assurance program, seeing it as an invalid

measurement of care. This view of quality assurance then preserves the other element involved in the dissonance, the integrity of the nursing care they provide. The theory of cognitive dissonance was used in this study to predict attitudes of nurses who are involved in a quality assurance program.

Assumptions

The assumptions of the study were as follows:

- 1. Nurses give the best care that they can to patients within the limitations imposed by many variables over which they have little or no control
- 2. The individual nurse strives toward cognitive consistency
- 3. Opinions and attitudes tend to exist in clusters that are internally consistent
- 4. Dissonance is a motivating factor in its own right
- 5. The presence of dissonance gives rise to pressures to reduce or eliminate the dissonance
- 6. Manifestations of the operation of these pressures include behavior changes and changes of cognition.

Hypotheses

The hypotheses tested in this study were:

- 1. There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative quality assurance scores
- 2. There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know
- on the General (Part A) portion of the Quality Assurance Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores

- 4. There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative quality assurance scores
- 5. There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know
- on the Specific (Part B) portion of the Quality Assurance Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores.

Definition of Terms

The theoretical and operational definition of terms for the study were as follows:

- 1. Quality assurance in general--guarantee of the excellence of a product; specifically for this study, guarantee of the excellence of nursing care
- 2. Specific quality assurance program—an organized program implemented by a hospital to determine the extent to which professional nursing practice meets selected objectives; specifically for this study, the Medicus program for quality assurance
- 3. Attitudes—a mental position, feeling, or emotion toward or with regard to a fact or state; specifically for this study, feelings, positions, or emotions concerning quality assurance in general and the Medicus program specifically, as measured by the Quality Assurance Opinion—naire
- 4. Positive attitudes about quality assurance-positive feelings, positions, or emotions concerning
 quality assurance; specifically for this study determined
 by the upper portion of a median split of the scores on
 the general and/or specific portions of the Quality Assurance Opinionnaire

- 5. Negative attitudes about quality assurance-negative feelings, positions, or emotions concerning
 quality assurance; specifically for this study determined
 by the lower portion of a median split of the scores on
 the general and/or specific portions of the Quality
 Assurance Opinionnaire
- 6. Knowledge of unit quality assurance scores-specific knowledge on the part of nurses concerning their
 patient care unit scores (positive or negative) with
 respect to the Medicus program; specifically for this
 study as measured by a yes or no answer on the Personal
 Data Questionnaire
- 7. Nurses--licensed professional nurses currently registered and engaged in clinical practice at a hospital; specifically for this study, licensed professional nurses registered in Texas and engaged in clinical practice at the specific hospital utilized as the setting
- 8. Patient care units--individual patient care areas within a hospital; specifically for this study, the individual units at the specific hospital utilized as the setting which are monitored for quality assurance using the Medicus program

- 9. Positive quality assurance scores--scores which indicate higher quality of care of patients; specifically for this study, determined by the upper portion of a median split of the unit scores on Medicus objectives for quality assurance
- 10. Negative quality assurance scores--scores which indicate a lower quality of care of patients; specifically for this study determined the lower portion of a median split of the unit scores on Medicus objectives for quality assurance.

Limitations

The limitations of the study were the inability of the researcher to manipulate the independent variable in the study and the use of self selection for obtaining the sample.

Summary

This chapter discussed the problem of nurses' attitudes about quality assurance and the importance of exploring these attitudes. The chapter outlined an ex post facto
study which explored these attitudes and discussed the
theoretical framework utilized in the study.

CHAPTER 2

REVIEW OF LITERATURE

This chapter will review the relevant literature concerned with nurses' attitudes about quality assurance. Since there is little literature relating specifically to that topic, the review is divided into three sections. The first section deals with quality assurance, what it is, and why it is important for nursing. The second section deals with attitudes, what they are, how they develop, and why they are important. The final section will review studies that have been conducted concerning nurses' attitudes and variables that emerged from these studies.

Quality Assurance

The American Nurses' Association (1975) stated that quality assurance is:

A program executed to make secure or certain the excellence of health care; the term is applied to programs as limited as that of an administrative unit of a health care agency or as broad as that of a community, a region, a state, or a nation. The program must have two major components: 1) the securing of measurements and ascertaining of the degree to which stated standards are met; 2) the introduction of change based on information supplied by the measurement of the total effort and product of the unit or agency. (p. A-2)

According to Davidson (1976) and Mayers (1977), quality assurance concerns attainment of the highest degree of excellence in the delivery of care. Quality assurance is a commitment to excellence of care, an estimation of the health status of consumers attained through nursing performance, and has as its major goal ensuring that care practiced will produce good patient outcomes.

Phaneuf and Wandelt (1974), Brown (1977), and Hill (1979) defined quality assurance and stated that it involves individual accountability of health personnel for the quality of health care provided. Hill (1979) went on to state that the term quality assurance implies a commitment to improve patient care and upgrade professional practice.

According to Hill (1979), it is possible that the nursing profession has talked about accountability but is unwilling or unable to ace accountable through quality assurance development. Hill (1979) posed the question:

Have nurses been so long in the mode of passing the ball to Dr. X that they are uncertain of their own ability to help the patient achieve a higher level along the health illness continuum? (p. 19)

The answer, Hill (1979) stated, is "yes." According to this author, observation has shown that the nursing

profession can begin to implement a quality assurance program successfully only after it identifies and includes missing ingredients that enhance accountability and commitment.

Martin (1979) defined nursing audit (related to quality assurance) as the evaluation of the quality of nursing care and nursing performance by the examination of selected patient records and the comparison with set criteria of the documented evidence of care found in the record. Martin (1979) reiterated that in this way the care given can be measured objectively and areas of excellence as well as areas of error or omission can be highlighted. According to Martin (1979), audit consists of three steps: (a) setting of criteria, (b) the audit itself, and (c) feedback of the results, the first and last steps being the most important. Only on the basis of very carefully selected criteria does the audit have any meaning and only with thorough ongoing feedback does it have any purpose. Martin (1979) spoke with all levels of nurses and gained the impression that it is now acceptable, even fashionable, to talk about the evaluation of care in general and the nursing audit in particular. The problem to overcome, Martin (1979) felt, is that nurses have been professionally socialized not to evaluate. Because we are

not educated to such evaluation methods, we are often threatened by them.

Control of assurance, according to Sherwin (1966), is "action which adjusts operations to predetermined standards and its basis is information in the hands of managers" (p. 67). This definition as stated by Sherwin has three components: a standard, an information feedback system, and an action taken to keep performance in line with the standards.

According to Warren (1979), the most difficult word to analyze and describe in nursing is "quality."

Everyone seems to believe in it, but no one can truly measure it. Every health professional accepts quality as the goal in health care but has difficulty in describing the means of achieving it, despite hours in the process.

Nicholls (1977) stated that term quality assurance is used to describe a process in which standards are set and action is taken to ensure achievement of the standards. It involves the description of the level of quality desired and feasible, and a system for ensuring its achievement. In reviewing the nursing literature, Nicholls (1977) concluded that the nursing profession has made many efforts to define the nurses' role more clearly and to devise tools

for evaluating the quality of nursing care. According to Nicholls (1977) however, the profession has not yet arrived at what may be considered the best possible way to evaluate nursing.

Nicholls (1974) also believed that quality control primarily requires that nurses become more conscious of standards and more adept in devising and using information and feedback systems. An effective control program is one in which the participants identify the ends and means standards and provide information to indicate whether they are being met. All members of the staff should view control as a means of determining whether the goals accepted by the staff are being achieved.

Schmadl (1979) emphasized that quality assurance involves assuring the consumer of a specified degree of excellence through continuous measurement and evaluation of structural components, goal-directed nursing process, and/or consumer outcome, using pre-established criteria and standards followed by appropriate alterations with the purpose of improvement. Schmadl (1979) suggested that the most important question to ask is: "What are we assuring?" The obvious answer is that we are assuring excellence of care. The next most important question for Schmadl (1979) is: "For whom are we assuring quality?"

The answer is that the consumer (patient or client) is the person to whom we are accountable. After these values of quality have been specified, the focus then becomes measurement and evaluation. Appraisal of quality for this author is not an end in itself, but rather a means of instituting appropriate change with the purpose of improvement.

The authors cited in this section represent a number of opinions within the nursing profession. All of them see quality assurance or related topice (such as audit) as an important step for nurses. These authors speak of accountability, commitment to care, attainment of the highest degree of care delivery, standards, continuous measurement, and evaluation. These common threads have been discussed and their importance for nursing high-lighted.

Attitudes

Identification of attitudes is one of the factors that may be of great importance to the success of quality assurance. Davis (1977) put it best when she stated that nurse administrators have the responsibility for forecasting for a quality assurance program. They must analyze all the existing factors which will positively and

negatively affect such a program. Nurses must be committed to whatever system of quality assurance is in existence or being developed if it is to be at all successful.

According to Brooks (1979), many psychologists maintain that the attitude we hold about a topic or subject will influence our behavior toward it. Brooks (1979) stated there are many definitions of attitudes and cited that of Allport (cited in Brooks, 1979) as a major one. Allport viewed attitude as

a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon individual responses to all objects and situations with which it is related. (cited in Brooks, 1979, p. 543)

Generally, positive attitudes lead to a positive behavior and vice versa. Psychologists maintain, according to Brooks (1979), that the attitude we hold about a topic or subject will influence our behavior toward it.

A. E. Miller (1979) stated attitudes, values, and beliefs are related and overlapping psychological factors which cannot be observed directly, but which can be inferred from the individual's reports or from his behavior. Attitudes are directly dependent upon beliefs and values, they have cognitive, affective, and connotative aspects. Attitudes predispose one to think, feel, and be inclined

to behave in a particular manner. A. E. Miller (1979) viewed attitudes as latent processes, persistent and enduring organizations of thought and feelings to be expressed in behavior when the occasion arises.

Krech (1962) defined an attitude as an enduring system of positive and negative evaluation, emotional feelings, and pro or con tendencies with respect to a social object. It is the enduring nature of an attitude which makes it different from an opinion.

Bonaparte (1979) inferred that attitudes develop out of parental and group influences and from innate personality characteristics. She also stated, however, that attitudes are manifested within the limits set by the culture.

LaMonica (1979) summarized the importance of nurses' attitudes by stating that all the definitions of attitude portray it as a response toward a person, idea, or object which leads to certain behavior. Since it is evident that attitudes influence behavior, the development by nurses of positive attitudes becomes of paramount importance.

Attitude coupled with motivation and knowledge leads to behavior. According to LaMonica (1979), nurses must focus on the development of these three dimensions: positive attitudes, motivation to reach realistic goals, and an

adequate knowledge base. Attitudinal development involves internal processes; it includes an awareness and understanding of self knowing as well as knowing about.

In this section, attitudes have been defined along with their importance for nursing. For any new program or idea to succeed, nurses' attitudes must be known and everything possible done to promote positive attitudes. Since attitudes lead to behavior, positive attitudes will be the foundation for successful implementation of a program.

Related Nursing Studies

Exploration of nurses' attitudes is a relatively new concept within the nursing profession. As stated previously, there is little available in the literature concerning nurses' attitudes, particularly in the area of quality of care evaluation. Four major studies emerge, as well as a group of less related studies.

The four major studies involved were Dyer (1972, 1975), Rosen and Abraham (1966), and Larocco and Polit (1978). Dyer's (1972, 1975) studies found that variations in performance can arise from the attributes that nurses bring to the work situation. In her 1972 study, Dyer used 200 registered nurses in four Utah hospitals and found

mance. Age was negatively related to performance. Older nurses received lower performance ratings. The educational level was related positively to performance as was administrative level; for example, nurses who were better educated and occupied positions higher in the administration received higher performance ratings.

Dyer's (1975) study involved 387 staff nurses from seven Veterans Administration hospitals. Patient care ratings were obtained by outside observers and the nurses' performance ratings were obtained from three levels: supervisory, peer, and subordinate. Correlations between patient care scores and performance scores were low; education was related positively with patient care and performance. Age was usually related negatively to patient care and performance and, like the initial study (Dyer, 1967), was often related to a significant degree.

Rosen and Abraham (1966) researched nurses' attitudes about a specific performance appraisal system. Seventy-four nurses from a Veterans Administration hospital were questioned by an opinion poll concerning their feelings about the appraisal system used by the hospital. Their study was basically a descriptive one and although age, education, and years of experience were obtained, no

attempts were made to correlate these with the results of the opinion poll. Rosen and Abraham (1966) stated, however, that positive or negative attitudes were either helpful or detrimental to the operation of the appraisal system and that age, education, and experience could be important variables affecting these attitudes.

Larocco and Polit (1978) studied nurses' attitudes toward mandatory continuing education. One hundred fifteen nurses from metropolitan Boston hospitals were surveyed. In addition to nurses' attitudes toward continuing education, the authors were interested in finding out if variables such as age, education, years of experience, type of position, or place of employment were significant. The findings of the study were that younger nurses were significantly more likely to favor mandatory continuing education, higher levels of education were associated with more favorable attitudes, and the place of employment was not related. There was a marked tendency for nurses with relatively few years experience to have a more favorable opinion toward mandatory continuing education.

Less related in terms of topic but still significant in terms of variables encountered is the Pankratz and Pankratz (1974) study which explored nurses' attitudes about nursing autonomy and patients' rights and found the

higher (more positive) scores were associated with education, leadership, academic setting, and the non-traditional social climate. Robb (1979) and Devine (1980) conducted studies concerning nurses' attitudes about the elderly. Neither study found significant correlation of attitudes with the age of the subject.

The literature was reviewed concerning nurses' attitudes toward quality assurance and related topics. Results from the studies were mixed in terms of significance of the demographic variables. Dyer (1972, 1975) found a positive relationship with age and educational preparation as did Larocco and Polit (1978), and Pankratz and Pankratz (1974). Rosen and Abraham (1966) found no relationship nor did Robb (1979) or Devine (1980). Although results were mixed, there are indications that such variables may be important to test in assessing nurses' attitudes.

Studies Utilizing Cognitive Dissonance

Cognitive dissonance has been used infrequently as a theoretical framework in published nursing literature. One article was found in which J. Miller (1974) utilized Festinger's theory as one approach to working with relatives' misconceptions about a loved one's illness.

In social psychological research, however, Festinger's theory of cognitive dissonance has been more widely tested. By 1968, 11 years after the publication of his theory, no less than 319 articles had been published concerning the various aspects of cognitive dissonance. An additional 80 to 100 studies have been published since that time.

Related to the theoretical framework but not supportive are the following topics: preliminary dissonance arousal on subsequent repeated dissonance exposure (Denmark & Ritter, 1972); inconsistencies between attitudes related to time of measurement (Galion & Watts, 1967; Kreitler & Kreitler, 1968); effects of dissonance on sensitivity to information (Feather, 1963; Rappaport, Reznikoff, Glueck, Honeyman, & Eisenberg, 1968); logical inconsistency and dissonance (Carlsmith, Collins, & Helmreich, 1966; Cohen, 1962; Festinger & Carlsmith, 1959; Linder, Cooper, & Jones, 1967); self esteem and logical inconsistency (Cooper & Duncan, 1971); self control, self perception, and dissonance (Aronson, 1969; Arrowood, Wood, & Ross, 1970; Bramel, 1962, 1963; Cooper & Worschel, 1970; Glass, 1964; Aronson, 1969). Dissonance theory has been applied to the work situation (Adams, 1961; Adams & Jacobsen, 1964; Adams & Rosenbaum, 1962;

Andrews, 1967; Friedman & Goodman, 1967); to consumer activity (Anderson, Taylor, & Holloway, 1966; Cardozo, 1965; Cummings & Venkatesen, 1976; Engel, 1963, 1965; Holloway, 1967); and to physiology (Gleason & Katkin, 1976; Totman, 1976; Totman, Reed, & Craig, 1977).

Five studies emerge that support dissonance theory as used in this study. Deutsch and Solomon (1959) experimented with adolescent girls who worked on a group task. Half of the girls in the group received poor evaluations and the other half received good evaluations. Each girl then received a comment from another group member which either discredited or congratulated her performance. The girls who received evaluations dissonant with their perceived performance rated their evaluators more unfavorably than those girls whose evalutions were not dissonant with their own perceptions.

Wilson (1965) attempted to support the idea that strong dissonance can be produced by giving a person an evaluation of either his personality and/or his performance which is inconsistent with his own self evaluation or self concept. Since, according to Festinger (1957), dissonance is aversive, a person should dislike and avoid an evaluator who gives him an evaluation that is dissonant with his self evaluation. Eighty-four subjects comprised

the sample for the study and were evaluated on their ability to take a test. Appraisal of the evaluator was found to depend on the dissonance aroused by the evaluators' comments. Dissonance also appeared to affect the desire to receive further comments from the co-worker.

Goethals and Cooper (1972) conducted two experiments to investigate the role of intention and post behavioral consequences in the arousal of cognitive dissonance. The results generally supported their predictions. When subjects freely engaged in counter additudinal role playing and that behavior led to an aversive consequence, then dissonance was aroused regardless of the subjects' intention to effect those consequences.

Goethals, Cooper, and Naficy (1979) conducted a study involving 60 college undergraduate students. Subjects were asked to deliver a speech counter to their attitudes; one group was informed of the possibility of unwanted consequences specifically, one group in more general terms, and another group was not informed at all. Results were supportive of the authors' original predictions. When subjects perform an act under conditions of high choice which they realize has the potential to produce unwanted consequence, they show effects of experiencing dissonance. One important aspect of the Goethals (1979) study was it

reaffirmed the idea that personal responsibility for consequences is a necessary pre-condition for dissonance arousal.

Johnson (1968) conducted a study using four samples of smokers and non-smokers. Test-retest design was employed, with the retest taking place after 15 months. Two hypotheses proposed first that non-smokers and exsmokers would be less likely than smokers to endorse rationalizations which could reduce dissonance caused by smoking. The second hypothesis proposed that a smoker's dissonance can be reduced either by his belief that he will quit smoking, or by endorsement of rationalizations which lessen the impact of evidence that smoking is a health hazard. Data collected provided evidence to support both hypotheses and were congruent with the fact that fewer dissonance reducing statements would be endorsed by smokers who announced intentions to quit smoking.

As cited, dissonance has emerged as a major theoretical framework and as such has been utilized extensively in social psychological research. Although used sparingly in the nursing field, five articles from social psychological literature appear which support its use in this study. These research studies all point to the fact that

dissonance can be aroused by evaluation appraisal and the aversive consequences toward which behavior can lead.

Summary

Although specific literature concerning nurses' attitudes about quality assurance is not available, there is literature available concerning related topics. Literature reviewed in this chapter concerned quality assurance, nurses' attitudes in general, and studies related to the development of cognitive dissonance.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

According to Polit and Hungler (1978), this study is classified as an ex post facto study. As stated by these authors, there are a number of research problems for which classification of the design as experimental or quasi-experimental is simply not appropriate. major consideration which deems them inappropriate is the inability for some reason to manipulate the independent variable. As Polit and Hungler (1978) stated, such classification indicates that the research is conducted after the changes in an independent variable have occurred as a natural course. The basic purpose in such a study is to determine relationships among the variables and because of the researchers' inability to manipulate the independent variable, the relationships cannot be determined to be causal. The format of this study is that of a field study. A field study, as cited by Polit and Hungler (1978) is an ex post facto investigation that is conducted in a real social setting.

Setting

The setting for this study was a large metropolitan hospital that is licensed for 508 beds, with a satellite hospital which is licensed for an additional 75 beds. The hospital is a major teaching facility and offers a full range of medical services. Included in the services offered are a comprehensive medical surgical program, adult and pediatric diabetic control units, a comprehensive cardiovascular program, hemodialysis, oncology, and a perinatal unit. The two hospitals employ approximately 300 registered nurses, and both hospitals have been utilizing a process audit, specifically the Medicus Tool, for the past 2 years to monitor the quality of nursing care delivered on the medical, surgical, pediatric, nursery, and intensive care units.

Population and Sample

The target population for the study was the approximately 300 registered nurses employed in the hospital setting on 20 different units, which were engaged in the quality assurance program and were being regularly monitored for quality of care. Selection of the sample was by the convenience method, and consisted of 42 nurses who

agreed to participate in the study and who completed the Personal Data Questionnaire and Quality Assurance Opinionnaire (Appendix A).

The delimitations related to the study sample were as follows:

- 1. Nurses beyond the orientation stage of employment were included in the sample
- 2. Nurses not presently serving as quality monitors were included in the sample
- 3. Nurses employed by the hospital itself rather than contract agency nurses were included in the sample
- 4. Only nurses on the 7 a.m. to 3 p.m. and 3 p.m. to 11 p.m. shifts were included in the sample.

Protection of Human Subjects

According to the current rules and regulations of the Texas Woman's University Human Research Review Committee, the following items were completed to ensure protection of the rights of human subjects: permission to conduct the study was obtained from the Human Subjects Review Committee and the graduate office of Texas Woman's University (Appendix B), the hospital (Appendix C), and from individual subjects in the study sample. Each subject had the research explained via a cover letter

(Appendix D) accompanying the data collection instrument. The letter stated that return of the completed questionnaire implied informed consent (Appendix D) to act as a subject in the research.

Instrument

Included in Appendix A is a copy of the instrument used to measure nurse attitudes about quality assurance. The Quality Assurance Opinionnaire was an attitude questionnaire developed by the researcher, and at this point has limited tested validity and reliability. The instrument consisted of 33 statements designed to obtain information about nurse attitudes toward quality assurance in general, and toward the specific quality assurance program that is utilized in the hospital described in the setting for the study. Statements in the tool were constructed from current nursing literature concerning quality assurance and from the actual Medicus tool used in the hospital.

There were no right or wrong answers to any of the statements in the instrument, but each was designated as a positive or a negative statement. Responses were measured via a 4-point Likert scale and range as follows: strongly agree, agree, disagree, and strongly disagree.

For positive statements, points are highest for strongly agree (4 points), agree (3 points), disagree (2 points), and strongly disagree (1 point). For statements that are negative, point direction is reversed.

Scores were obtained for each section, Part A, general attitudes toward quality assurance, and Part B, specific attitudes toward the Medicus Quality Assurance tool, separately. The range of possible scores for Part A, general, is 16 to 64; for Part B, specific, is 18 to 72, with the lowest numbers being the most negative and the highest being the most positive score possible.

Demographic data were collected at the same time the Quality Assurance Opinionnaire was administered via the Personal Data Questionnaire. Data collected were age, educational preparation, years of nursing experience, and knowledge of patient care unit quality assurance scores.

Prior to data gathering, the instrument was submitted to a panel of seven experts who were asked to review the statements for clarity and appropriateness. Following the panel review and at the suggestion of all seven members, two statements were deleted as being inappropriate for the questionnaire. Eight statements were reworded to improve clairty: items 4, 8, 10, 21, 24, 25,

26, and 28. The meaning of these amended statements remained the same.

Following the panel review and revision, the instrument was pretested on a smaller sample of 18 nurses.

Item analysis was done in an additional three items,

items 4, 28, and 29, were edited for clarification.

The Personal Data Questionnaire was also developed by the researcher to gather data about demographic variables at the same time the Quality Assurance Opinionnaire was administered.

Data Collection

Once permission was obtained from Texas Woman's.

University Human Research Review Committee, the hospital which was utilized was contacted for permission from the administration to conduct the study. When hospital permission was obtained, nursing supervisors of the various nursing divisions (for example, Medical, Surgical, and Maternal-Child) and then Head Nurses of the appropriate units were contacted and the study explained to them. Assistance was asked to arrange meetings with their nursing staff to administer the questionnaires. Meetings were arranged with the nursing staff on the appropriate units and the convenience sample was obtained. Subjects had the

study explained to them by the investigator (Appendix E), and following the informed consent (Appendix D), subjects were asked to provide demographic data and answer the attitude questionnaire. This was the end of participation in data collection for the subjects.

Questionnaires were then scored and a separate score was obtained for Parts a, general, and B, Medicus Specific. Scores were designated positive or negative by a median split of the scores on each part. For Part A, 51 or more was a positive score; 50 or below was a negative score. For Part B, 46 or more was a positive score; 45 or below was a negative score.

Medicus scores for quality assurance for the past year were obtained from the hospital nursing administration. The scores for each unit were averaged and positive and negative values were decided by the upper and lower portions of a median split of the scores. The median score was 70, all units with average scores of 70 and above were considered positive and those below 70 were considered negative. Of the 16 units initially involved, 8 were designated positive and 8 negative. Two units were unable to participate and this reduced the number of positively and negatively rated units to 7 each.

Treatment of Data

The Demographic Data Questionnaire yielded nominal data. Appropriate statistical tests for such data were frequency distribution, mean, median, mode, and standard deviation. As stated by Byrkit (1975) the organization and presentation of data is one of the primary purposes of descriptive statistics. Data must be well organized in order to be understandable, and these measures are some of the best ways to organize and present descriptive data.

The Quality Assurance Opinionnaire yielded inferential data. The inferential statistical treatment of data used for this study was that of analysis of variance. According to Polit and Hungler (1978), analysis of variance is a parametric procedure that can be utilized to test the significance of differences which may be exhibited between means. Analysis of variance decomposes the total variability of a set of data into two components.

- Variability resulting from the independent variable; and
- 2. All other variability, for example, individual differences, measurement of unreliability.

If the differences between groups receiving different treatments are large relative to the random fluctuations within groups, then it is possible to establish the

probability that the treatment is related to or caused the group differences.

In this study the independent variables were patient care unit quality assurance score, and knowledge of this score. The dependent variable for both was nurse attitudes about quality assurance.

CHAPTER 4

ANALYSIS OF DATA

Findings from the study are presented in terms of a description of the sample and the findings from the study. Tables are included within the body of the chapter and discussion is provided for each section of data presented in the tables.

Description of the Sample

Data were collected from 42 subjects. Thirty-four subjects responded to all or all but one of the items. Eight subjects did not respond to five or more items and were excluded from the sample at this point leaving a sample of 34 for data analysis. Age was categorized in five groups, 20-29, 30-39, 40-49, 50-59, and 60+. The largest group of subjects (n = 21) was the 20-29 year age group. The second largest group (n = 9) was in the 30-39 year age group. The third largest group (n = 2) was the 50-59 year age group. The smallest groups were the 40-49 year age group (n = 1) and the 60+ age group (n = 1).

Educational level of the subjects was categorized as Associate Degree (A.D.), Diploma, Bachelor of Science

(B.S.), and Master of Science (M.S.). The largest group in this category was the B.S. group (n=19), the Diploma group was second (n=9), the A.D. group third (n=5), and the M.S. group fourth (n=1).

Years of nursing experience for the subjects was measured by five categories, 0 to 4 years experience (n = 18), 5 to 10 years experience (n = 4), 11 to 14 years experience (n = 7), 15 to 19 years experience (n = 5), and 20+ years experience (n = 0). The data relative to age, educational level, and years of experience of subjects in the sample are displayed in Table 1.

Table 1
Sample by Variables of Age, Educational Level, and Years of Experience

Level of Education					Years of Experience						
Age	A.D.	Dip.	B.S.	M.S.	0-4	5-10	11-14	15-19	20+		
20-29	1	4	16	0	18	3	0	Q	0		
30-39	2	3	3	1	0	1	6	2	0		
40-49	1	0	0	0	0	0	0	1	0		
50 - 59	1	1	0	0	0	0	1	1	0		
60÷	_0_	1	0	0	_0_	0	0	1_	0		
Total	5	9	19	1	18	4	7	5	0		

Subjects were also categorized by knowledge of their patient care unit scores on the Medicus objectives for quality assurance, as well as whether their patient care unit received positive or negative feedback. Seven subjects knew their unit Medicus scores which were reported in percentage of possible scores. Twenty-seven subjects had no knowledge of this. Twenty-three subjects were from units which had positive unit Medicus scores, and ll subjects were from units with negative unit Medicus scores. The data relative to type of unit Medicus rating and knowledge of unit rating is presented in Table 2.

Table 2
Sample by Unit Score and Knowledge of Unit Score

Unit Scores				
Positive	Negative			
5	2			
9	_18_			
14	20			
	Positive 5 _9			

n = 34.

The frequency distribution of scores for Part A (General) of the Quality Assurance Opinionnaire yielded a range of scores from 37 to 64, with a mean score of 51.9,

a median score of 51, and a mode of 53. Standard deviation for the sample was 6.33. Scores of 51 and above were designated as positive scores, and scores of 50 and below were designated as negative scores. The results of the frequency distribution of test scores on Part A (General) is found in Table 3.

The frequency distribution for Part B (Specific) of the Quality Assurance Opinionnaire yielded a range of scores from 33 to 57, with a mean score of 45.59, a median score of 45, and multiple modes at 44, 45, 46, and 47. The standard deviation for the scores is 5.63. Using a median split, scores of 46 and above were designated positive, and scores of 45 and below were designated negative. The data relative to the frequency distribution of scores on Part B (Specific) are displayed in Table 4.

Mean scores for Part A (General) for the sample in terms of type of unit rating and knowledge of Unit scores were computed. Those subjects (n = 5) who had knowledge of their unit scores and were from units receiving positive feedback via the quality assurance program had a mean score of 57.4. Those subjects who had knowledge of their unit scores and were from units receiving negative feedback from the quality assurance

Table 3

Frequency Distribution, Mean, Median, Mode, and Standard Deviation and Range of Test Scores for Total Sample for Part A

Score (<u>x</u>)	Frequency (\underline{f})
37	1
41	1
42	1
43	1
45	1
46	3
47	. 2
48	2
49	3
50	1
51	1
52	1
53	4
54	1
55	2
56	2
57	1
58	1
59	2
61	1
62	1
63	1
	$N = 34 = \Sigma \underline{f}$

Mean = 51.9. Median = 51.

Mode = 53.

Range = 37-64

SD = 6.33

Range of Possible Scores 16-64

Table 4

Frequency Distribution, Mean, Median, Mode, and Standard Deviation and Range of Test Scores for Total Sample for Part B

Score (\underline{x})	Frequency (<u>f</u>)
33	1
34	1
36	1
37	1
41	3
43	2
44	4
45	4
46	4 .
47	4
50	3
51	1
52	1
54	2
55	1
57	1
	$N = 34 = \Sigma \underline{f}$

Mean = 45.59.

Median = 45.

Mode = 44, 45, 46, 47.

Range = 33.47.

SD = 5.63.

Range of Possible Scores = 17-68.

program (n = 2) had a mean score of 44. The subjects who did not know their unit scores and were from units receiving positive feedback from the quality assurance program (n = 18) had a mean score of 49.83. Those subjects who did not know their unit scores and were on a unit receiving negative feedback via the quality assurance program (n = 9) had a mean score of 52.44. The data relative to mean scores on Part A (General) of the Quality Assurance Opinionnaire is displayed in Table 5.

Mean scores for Part B (Specific) for the sample in terms of type of unit rating and knowledge of unit rating were computed. Those subjects who had knowledge of their unit scores and were from units receiving positive feedback by way of the quality assurance program (n = 5) had a mean score of 49. Those subjects who had knowledge of their unit scores and were from units receiving negative feedback from the quality assurance program (n = 2) had a mean score of 39.5. Those subjects who did not know their unit scores and were from units receiving positive feedback from the quality assurance program (n = 18) had a mean score of 44.61. Those subjects who did not know their unit score and were from units receiving negative feedback via the quality assurance program (n = 9) had a mean score of 47.0. The data relative to mean scores on

Mean Attitude Scores for Four Groups According to Type of Unit Medicus Rating and Knowledge of Unit Quality
Assurance Score

	Knowledge of Unit Scores Positive	Knowledge of Unit Scores Negative	No Knowledge Unit Scores Positive	No Knowledge Unit Scores Negative	
Mean Score:		*			
Part A	57.4	44.0	49.83	52.44	<i>σ</i> ι ω
Part B	49.0	39.5	44.61	47.0	

Part B (Specific) portion of the Quality Assurance Opinionnaire is displayed in Table 5.

Presentation of Responses

Description of Responses to Individual Questionnaire Items (Part A)

Table 6 summarizes the questions utilized on the Quality Assurance Opinionnaire and the number of answers in each category. Response categories are as follows: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Negative questions are indicated since point directionality is reversed for these questions.

In terms of general attitudes about quality assurance, items pertaining to improvement of care and setting of standards of care revealed positive responses. Items concerning the purpose of quality assurance evaluation, valid measures of quality of care, nurses' knowledge and participation in settings standards, some disagreement was evidenced with negative attitudes being expressed by subjects in these areas. On items pertaining to the importance of quality assurance for nursing, the responsibility of individual nurses for delivery of quality care, the importance of changes in nurses' behavior prompted by quality assurance review, all evoked a great deal of

			•			
		Agree	ement C	ategory		
Item		1	2	3	4	
Gener	ral Survey					
1.	Improvement of the quality of patient care is an important part of nursing			2	32	
2.	Appraisal of the quality of care serves as a stimulus for the improvement of care.	1	3	15	16	
3.	Standards of care are an integral part of the appraisal of quality of care.			21	13	
4.	The primary purpose for evaluation of the quality of care is improvement of care rather than regulation of nurses.		1	13	20	
5.	Documentation of care given is needed to evaluate the quality of care.		1	12	21	
-6.	Review of quality of care does not include review of the chart.	15	13	3	2	
7.	The responsibility for provision of quality care rests on each individual nurse.	2	3	15	13	

ហ

Table 6 (continued)

				Categor	cy	
Item		1	2	3	4	
8.	One of the valid measures of the quality of nursing care is based on the nursing activities performed in the actual delivery of nursing care to individual patients.	,	1	21	12	
9.	Review of the quality of care is relevant to nursing practice.		3	16	15	*
10.	Quality is assured by implementing an evaluation system to assure that delivered care is at the optimum achievable degree of excellence.	3	8	12	10	
11.	The need for registered nurses to create a change in their functions to include quality assurance review is one of the most urgent matters facing nursing today.	2	9	20	2	
-12.	Formal appraisal of the quality of nursing is not beneficial.	12	15	6	1	
13.	Quality of care evaluation improves patient care by leading to changes in the behavior of staff nurses.	3	9	19	15	

Table 6 (continued)

•	G	eneral	Category	Y	
Item	1	2	3	4	
14. Because nursing performance is so closely associated with the care that patients receive, if nurses are to provide quality care to patients, they must know the factors that affect the delivery of that nursing care.	-	3	16	15	
-15. Quality control (evaluation of the quality of care) is not one of the most important aspects of nursing.	5	15	11	3	
16. Quality control is only effective when staff nurses have input into what is to be measured.		2	20	12	

⁻ before a number represents a negative statement with reversal of scoring.

disagreement, with many more negative responses being recorded.

Description of Responses to Individual Questionnaire Items (Part B)

Table 7 summarizes the questions utilized on Part B (Specific) of the Quality Assurance Opinionnaire and the number of answers in each category.

In terms of specific attitudes about the Medicus program, only one item received totally positive responses; the item pertained to the fact that each question on the Medicus format implies a standard of care. On items concerning the appropriateness and accuracy of the aspects of care measured, the accuracy of evaluation and scores, and the frequency of quality monitoring rounds, some disagreement was evidenced with negative responses expressed by some of the subjects. On items pertaining to the purpost, helpfulness, positive effect of the Medicus program, and the fair and impartial treatment of each unit, much disagreement was evidenced with many negative responses.

Test of Hypotheses

Six hypotheses were tested in this study. There were three hypotheses relating to Part A of the Quality

Table 7
Frequency of Response to Items by
Level of Agreement Categories

	Agı	ceement	Categor	У
Item	1	2	3	4
Specific Survey				
-17. Quality monitoring assesses the quality of the medical record rather than the actual quality of care delivered.	5	10	16	3
18. Monthly quality scores reflect				
accurately the quality of care that is being given on the individual units.	5	23	6	
19. The aspects of care that quality assurance measures each month are appropriate ones.		3	25	6
20. The persons doing the quality monitoring judge fairly.	2	5	22	5
21. The purposes of the Medicus Quality				
<pre>monitoring program are primarily educational and constructive (not punitive or destructive).</pre>	. 1	1	24	8

		Aqı	reement	Categor	Y	•
Item		1	2	3	4	
22.	Each of the questions asked in a quality monitoring observation implies an expected level or standard of care.			29	5	
23.	The Medicus tool is an evaluation tool specifically designed to measure the quality of care on the individual patient care units.		2	27	5	
-24.	Quality observations are done on the units much too frequently.	3	27	4		
-25.	Answering the questions for quality monitoring is too time consuming and/or inconvenient for the nurses who are giving care.	2	22	8	2	
26.	The present format of quality monitoring (Medicus) allows for accurate descriptions of the quality of patient care given.	4	17	13		
27.	The Medicus system of quality assurance includes all the pertinent elements involved in quality care.	3	17	14		

60

Item	$\frac{A}{1}$	greemer 2	nt Catego	ory 4
-28. The questions asked on the present quality assurance questionnaires are confusing and difficult to understand for the nurses who must answer them.	1	28	5	
29. Areas of poor nursing care receive more emphasis than those of good nursing care with the present (Medicus) format.		22	11	1
-30. The quality assurance rounds made presently on the units are not frequent enough to really evaluate nursing care.	1	16	17	
31. Overall, the present system of quality assurance is a positive way to evaluate the nursing care given on the units.	2	11	19	2
32. The present system of quality assurance is very helpful in identifying				
specific kinds of nursing performance which need improvement.	3	7	22	2

Table 7 (continued)

	Ac	Agreement Category			
Item	1	2	3	4	
33. The present system of evaluation allows for impartial and fair treatment of all units with respecto the quality of care given.	t 2	7	24	1	

⁻ before a number represents a negative statement with reversal of scoring.

Assurance Opinionnaire and three hypotheses relating to Part B of the Opinionnaire.

Hypotheses Regarding Attitudes about Quality Assurance in General (Part A)

The hypotheses that were tested concerning scores on Part A (General) of the Quality Assurance Opinionnaire are as follows:

- 1. Hypothesis 1: There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative assurance scores.
- 2. Hypothesis 2: There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know.
- 3. Hypothesis 3: There will be no difference among mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on patient care units with positive quality assurance scores and who knew their

unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores.

These hypotheses were designed to serve the following purposes:

- 1. Measure the difference between the independent variable of unit scores and the dependent variable attitude toward quality assurance in general.
- 2. Measure the difference between the independent variable knowledge and the dependent variable attitude toward quality assurance in general.
- 3. Measure the interaction effect of the two independent variables, unit Medicus score and knowledge of unit score, with the dependent variable attitude toward quality assurance in general.

Based on these hypotheses and the design outlined, subjects were categorized into four groups, showing two levels of two independent variables. Data relative to the hypotheses regarding quality assurance in general are presented in Table 8, showing table and marginal means for each group.

Table 8

Group and Marginal Mean Attitude Toward
Quality Assurance in General (Part A)
Related to Patient Unit Quality
Assurance Score and Knowledge
of Patient Unit Score

Knowledge of Unit Score		Unit Score Negative Positive		
Knowledge	(n = 2)	57.4 (n = 5)	M = 50.7	
No Knowledge	$ \begin{array}{r} 52.44 \\ (n = 9) \end{array} $ $ M = 48.22 $		$M = 51.13$ $M_{t} = 50.91$	

The first three hypotheses were statistically tested by means of a 2 x 2 factorial analysis of variance using an SSPS computer program. Tests for homogeneity of variance were done using Bartlett's test. Results were not significant for variance, so homogeneity was assumed. The results of the analysis are presented in Table 9.

A summary of the analysis of variance shows the \underline{F} value for Hypotheses 1, with 1 and 33 degrees of freedom was .360 with a probability of .533. $\underline{P} = .533 > \underline{P} = .05$; therefore, the hypothesis was accepted at the established .05 level of significance.

Table 9

Analysis of Variance Summary Table for Test of Hypotheses 1, 2, and 3

Source of Variation	SS	df	MS	<u>F</u>	<u>P</u>
Main Effects:	44.901	2	22,451	0.719	0.496 ns
Unit Score	11.253	1	11,253	0.360	0.553 ns
Knowledge	32.010	1	32,010	1,025	0.320 ns
Interaction Unit x Knowledge	261.928	1	261,928	8,384	0.007*
Total	1244.029	33	37.698		

^{*}Significant at the .05 level.

For Hypothesis 2, the \underline{F} value with 1 and 33 degrees of freedom was 1.025 with a probability of 0.320. \underline{P} = 0.320 \underline{P} = .05; therefore the hypothesis was accepted at the established .05 level of significance.

For Hypothesis 3, the \underline{F} value with 1 and 33 degrees of freedom was 8.384 with a probability of .007. \underline{P} = 0.007 > \underline{P} = .05; therefore Hypothesis 3 was rejected.

There was a significant interaction effect between unit score and knowledge of score on attitudes toward quality assurance in general. The interaction effect was demonstrated by the difference in cell and marginal means in Table 8. According to Kerlinger (1973), the cell means show a symmetrical interaction when the higher mean for the variable of unit score is opposite for the two levels of the other variable, knowledge of unit scores. Figure 1 shows the symmetrical interaction effect visually.

The nearly horizontal line plotted for the two groups in which the unit score was not known shows that there was very little relationship between the unit score variable and not knowing the unit score. The diagonal line plotted for the two groups in which the unit score was known shows a relationship between knowledge of unit score and whether the unit score was positive

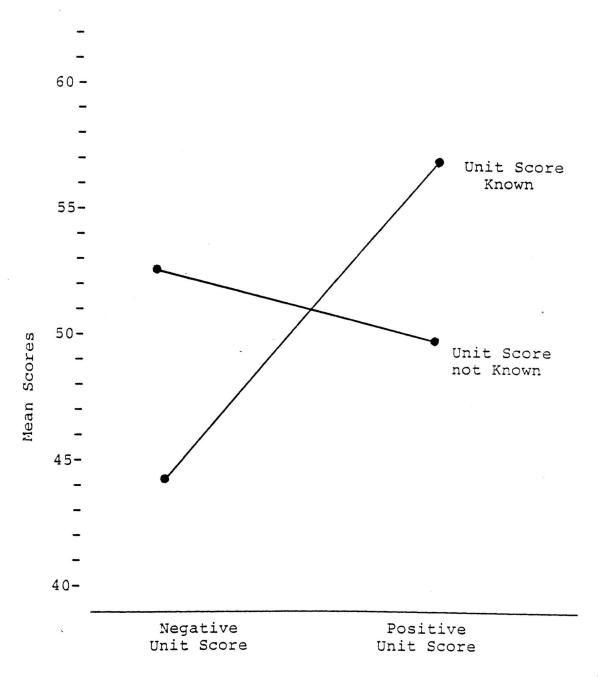


Figure 1. Graph showing mean scores on Quality Assurance Opinionnaire, Part A, for four groups of subjects.

or negative (Kerlinger, 1973). In other words, there was little difference in attitude scores on the general portion of the Quality Assurance Opinionnaire for nurses who were on units with negative or positive scores if they did not know their unit scores. However, there was a significant difference in attitude scores for nurses who knew their unit scores depending on whether they were negative or positive scores.

Hypotheses Regarding Attitudes about a Specific Quality Assurance Program (Part B)

Three hypotheses were proposed concerning attitudes about a specific quality assurance program. The hypotheses tested were:

- 1. Hypothesis 4: There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative quality assurance scores.
- 2. Hypothesis 5: There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know.

3. Hypothesis 6: There will be no difference among mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores.

The purposes of these three hypotheses were to:

- 1. Measure the difference between the independent variable of unit score and the dependent variable attitudes toward the Medicus program.
- 2. Measure the difference between the independent variable knowledge and the dependent variable attitude toward the Medicus program.
- 3. Measure the interaction effect of the two independent variables, unit Medicus score and knowledge of unit score, with the dependent variable attitude toward the Medicus program.

Based on these hypotheses and the design outlined, subjects were categorized into four groups, showing two levels of two independent variables. Data relative to the hypotheses regarding attitudes about the specific quality assurance program are presented in Table 10, showing table and marginal means for each group.

Table 10

Group and Marginal Mean Attitude Toward Quality Assurance Specifically (Part B)
Related to Patient Unit Quality
Assurance Score and Knowledge
of Patient Unit Score

Knowledge of	Unit Score				
Unit Score	Negative	Positiv	e		
Knowledge	39.5 $(n = 2)$	49 (n = 5)	M = 44.25		
No Knowledge	$ \begin{array}{c} 47 \\ (n = 9) \end{array} $	44.61 (n = 18)	M = 45.81		
	M = 43.25	M = 46.81	$M_{t} = 45.03$		

The three hypotheses were tested by means of a 2 \times 2 factorial analysis of variance using an SSPS computer program. The results of the analysis are presented in Table 11.

A summary of the analysis of variance shows the \underline{F} value for Hypothesis 4 with 1 and 33 degrees of freedom

Source of Variation	<u>ss</u>	<u>df</u>	MS	<u>F</u>	<u>P</u>
Main Effect:	0.182	2	0.091	0.005	0.995 ns
Unit Score	0.069	1	0.069	0.004	0.950 ns
Knowledge	0.121	1	0.121	0.007	0.934 ns
Interaction Unit Score Knowledge	94.155	1	94.155	5.384	0.027*
Total	618.971	33	18.757		

^{*}Significant at the .05 level.

72

was .004 with a probability of .950. $\underline{P} = .995 > \underline{P} = .05$; therefore the hypothesis was accepted at the established .05 level of significance.

For Hypothesis 5, the \underline{F} value with 1 and 33 degrees of freedom was .007 with a probability of .934. \underline{P} = .934 $\Rightarrow \underline{P}$ = .05; therefore, the hypothesis was accepted at the established .05 level of significance.

For Hypothesis 6, the \underline{F} value with 1 and 33 degrees of freedom was 5.384 with a probability of .027. \underline{P} = .027 > \underline{P} = :05; therefore, the hypothesis was rejected at the .05 level of significance. Tests for homogeneity of variance were done using Bartlett's test. Results were not significant for variance, so homogeneity was assumed.

There was a significant interaction effect between unit score and knowledge of score on attitude toward a specific quality assurance program. The interaction effect was demonstrated by the difference in cell and marginal means in Table 10. According to Kerlinger (1973), the cell means show a symmetrical interaction in which the higher means for the variable unit score is opposite for the two levels of the variable knowledge of unit scores. Figure 2 shows the symmetrical interaction effect visually.

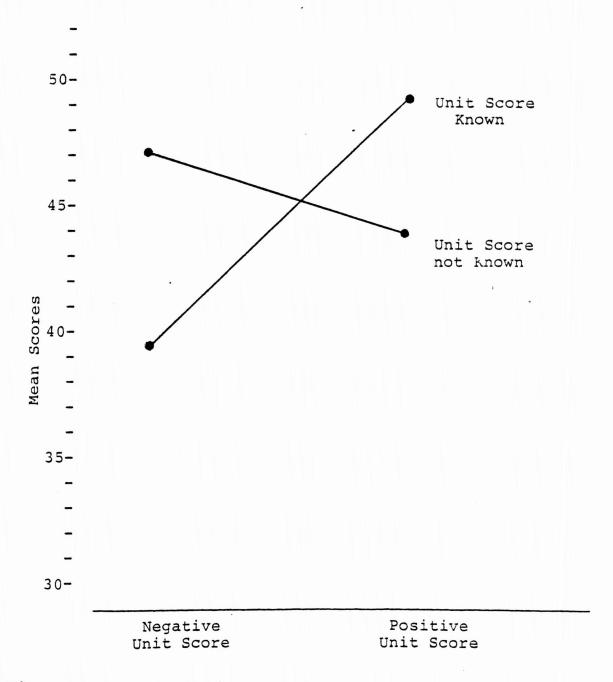


Figure 2. Graph showing mean scores on Quality Assurance Opinionnaire, Part B, for four groups of subjects.

The nearly horizontal line plotted for the two groups in which the unit score was not known shows that there was very little relationship between the unit score variable and not knowing the unit score. The diagonal line plotted for the two groups in which the unit score was known shows a relationship between knowledge of unit score and whether the unit score was positive or negative (Kerlinger, 1973). In other words there was little difference in attitude scores on the specific (Part B) portion of the Quality Assurance Opinionnaire for nurses who were on units with negative or positive scores if they did not know their However, there was a significant difference in scores for nurses who knew their unit scores depending on whether they were negative or positive scores.

Additional Findings

In order to determine if other variables may have been related to the attitude scores, a one-way analysis of variance was performed using age, education, years of experience, and work unit as independent variables, with both attitude scores (General and Specific) as the dependent variable. The results of all the above analyses were not significant except for the variable

of age with attitude (General). Table 12 shows the mean scores on the attitude by age category and other descriptive statistics relating to the two variables.

As shown in Table 12, the highest mean score (most positive attitude) was obtained by the 30-39 year age group, and the lowest by the 50-59 year age group. Overall, subjects over age 50 had lower scores (less positive attitudes) than subjects under that age. The results of the one-way analysis of variance used to test the significance of the age variable are presented in Table 13.

In order to determine which group means were significantly different from the others, the Tukey method of multiple comparison was used (Hopkins & Glass, 1978). The Kramer (1956) modification reported by Hopkins and Glass (1978) was used to adapt to unequal $\underline{\mathbf{n}}$'s in the groups. The only group means difference was between the 30-39 year age group and the 50-59 year age group. The critical value for .95 $\underline{\mathbf{q}}$ 5,29 = 4.17. The obtained $\underline{\mathbf{q}}$ value was 4.41 (4.41 > 4.17 $\underline{\mathbf{p}}$ = .05). Therefore, it was determined that the 30-39 year age group differed significantly from the 50-59 year age group on attitudes about quality assurance in general, with the 30-39 year age group having more positive attitudes than the 50-59

Table 12

Descriptive Statistics for the Attitude Toward
Quality Assurance (General) According
to Age Category

			go outogor1		
Age Range	Number in Group	Mean	Standard Deviation	Standard Error	Range
20-29	21	51.38	5.88	1,28	23
30-39	9	55.00	4.44	1.48	13
40-49	1	53.00			
50-59	2	41.50	6.36	4.50	9
60+	1	45.00			
Total	34	49.18	6.12	1.07	27

Table 13

Analysis of Variance Summary Table for Attitudes (General) by Five Levels of Age

Source of Variation	<u>88</u>	<u>df</u>	MS	<u>F</u>	<u>P</u>
Between groups	309.46	3	103.15	3.36	0.0320*
Within groups	889.54	_29	30.68		
Total	1198.91	32			

^{*}Significant at the .05 level.

year age group. No other group comparisons showed significant differences.

Summary of Findings

The findings of the study are presented in terms of the hypotheses tested by the study. The findings are as follows:

The first hypothesis, that there will be no difference in mean scores on the General (Part A) portion
of the Quality Assurance Opinionnaire between nurses who
worked on patient care units with positive quality assurance scores and those who worked on patient care units
with negative quality assurance scores was accepted.

The second hypothesis, that there will be no difference in mean scores on the General (Part A) portion
of the Quality Assurance Opinionnaire between nurses who
knew their patient care unit quality assurance scores and
those who did not know was accepted.

The third hypothesis, that there will be no difference among mean scores on the General (Part A) portion
of the Quality Assurance Opinionnaire for nurses who
worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on
patient care units with positive quality assurance scores
and who knew their unit scores, those who worked on

patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores was rejected at the .05 level of significance.

The fourth hypothesis, that there will be no difference in mean scores on the Specific (Part B) portion
of the Quality Assurance Opinionnaire between nurses who
worked on patient care units with positive quality assurance scores and those who worked on patient care units
with negative quality assurance scores was accepted.

The fifth hypothesis, that there will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know was accepted.

The sixth hypothesis that there will be no difference among mean scores on the Specific (Part B)

portion of the Quality Assurance Opinionnaire for nurses
who worked on patient care units with negative quality
assurance scores and who knew the scores, those who
worked on patient care units with positive quality assurance scores and who knew their unit scores, those who
worked on patient care units with negative quality

assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores was rejected at the .05 level of significance.

An additional finding was that those subjects in the 50-59 year age group had significantly more negative scores on Part A of the Quality Assurance Opinionnaire than subjects in the 30-39 year age group.

CHAPTER 5

SUMMARY OF THE STUDY

The problem of this study was to determine if the evaluated level of care on a particular patient care unit influenced the attitudes of nurses on the unit toward a quality assurance program. Based on this problem, six hypotheses were proposed.

The hypotheses proposed by the study were as follows:

- 1. There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative quality assurance scores.
- 2. There will be no difference in mean scores on the General (Part A) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know.
- 3. There will be no difference among mean scores on the General (Part A) portion of the Quality Assurance

Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores.

- 4. There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who worked on patient care units with positive quality assurance scores and those who worked on patient care units with negative quality assurance scores.
- 5. There will be no difference in mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire between nurses who knew their patient care unit quality assurance scores and those who did not know.
- 6. There will be no difference among mean scores on the Specific (Part B) portion of the Quality Assurance Opinionnaire for nurses who worked on patient care units with negative quality assurance scores and who knew the

scores, those who worked on patient care units with positive quality assurance scores and who knew their unit scores, those who worked on patient care units with negative quality assurance scores and who did not know their unit scores, and those who worked on patient care units with positive quality assurance scores and who did not know their unit scores.

Summary

To answer the problem outlined, and to find out if the hypotheses proposed could be supported, an ex post facto study was undertaken. The setting for the study was a large metropolitan hospital which employs approximately 300 registered nurses, and has utilized a process audit (specifically the Medicus objectives for quality assurance) for the past 2 years to monitor the quality of nursing care delivered on medical, surgical, and maternal-child patient care units.

The target population for the study was the 300 registered nurses employed by the hospital. Selection of the sample was by the convenience method, and consisted of 34 nurses who agreed to participate in the study, and completed the Personal Data Questionnaire and the Quality Assurance Opinionnaire. Before data collection began,

permission to conduct the study was obtained from the Texas Woman's University Human Research Review Committee and from the hospital from which subjects were obtained. Subjects' return of the questionnaire after reading a cover letter providing information was considered to be informed consent from them.

The instruments utilized to gather data were the Personal Data Questionnaire and the investigator developed Quality Assurance Opinionnaire. The Personal Data Questionnaire collected information regarding the demographic variables of age, educational preparation, years of nursing experience, and knowledge of patient care unit quality assurance scores.

The Quality Assurance Opinionnaire consisted of 33 statements designed to obtain information about nurse attitudes in general and toward the specific quality assurance program utilized in the setting described.

Each statement was designated as a positive or negative statement, responses were measured via a 4-point Likert scale and ranged from strongly agree and agree to disagree and strongly disagree.

Following completion of data collection, questionnaires were scored and a separate score obtained for Part A (General) and Part B (Specific). Scores were designated positive or negative by a median split of the scores on each part. Individual unit scores on the Medicus objectives for quality assurance for each unit for the year were averaged and positive and negative values decided by the upper and lower portions of a median split of the scores.

The Demographic Data Questionnaire yielded nominal data which was statistically treated using a frequency distribution, mean, median, mode, and standard deviation. The Quality Assurance Opinionnaire yielded inferential data and treatment was that of analysis of variance.

Discussion of Findings

The findings of the study are discussed in terms of each hypothesis and additional findings. There were six major findings and one additional finding derived from the study.

The findings that knowledge of unit score and positive or negative unit score was not associated with attitude, either on the General or Specific portions of the Quality Assurance Opinionnaire could be expected according to the theoretical framework. Festinger (1957) stated that it is pairs of elements which logically follow one another in sequence that can create dissonance.

Used as the main effects in this study, knowledge of unit quality assurance score and positive or negative unit score are isolated elements and do not create dissonance.

It is only when the elements of unit quality assurance score and knowledge of unit score are paired and their interaction is tested that dissonance (in the case of people on negative units with knowledge of the unit scores) or consonance is exhibited (in the case of people on positive units with knowledge of the unit score).

This, too, can be expected according to the theory of cognitive dissonance, for when paired elements do not agree or follow each other logically (for example, when a negative formal evaluation of care is coupled with a positive self evaluation of care) dissonance can be aroused. One way for nurses to deal with this dissonance is to change their attitude about the program that is giving them the negative feedback.

In spite of strong support from the theoretical frame-work, there may be other explanations for the results obtained in the study. The Quality Assurance Opinionnaire is a new tool, designed by the researcher for this study. As such, it has limited reliability. The tool was submitted, however, to a panel of experts and pretested on

a smaller similar sample which gives it some content validity. In addition, there was a difference in the mean scores on Part A (51.9) and Part B (45.59), lending credence to the fact that the two parts were discriminating between two attitudes.

Age was found to be a significant factor and may also be a factor to account for the interactions found. However, further examination of the data reveals that the age groups are well spread over all the cells (for example, positive units with knowledge, positive units with no knowledge, and vice versa). Consequently, age does not explain the interaction effect achieved.

The importance of age as a demographic variable does find support in the literature. Dyer, both in her 1967 study and her 1975 study, found age to be negatively related to performance. Pankratz and Pankratz (1974) found age to be negatively related to attitudes about autonomy and patient rights, and Larocco and Polit (1978) found age to be negatively related to attitudes about mandatory continuing education.

The significant difference concerning age was found to be between the 30-39 year age group and the 50-59 year age group. This brings up the question of "Why these two groups?" Are there specific differences between these two

groups? For example, the 30-39 year age group has been practicing about 10 years, and they may be very confident about their clinical skills and ability and consequently not threatened by a formal evaluation such as the quality assurance program. This may also be the group that is returning to school (to pursue basic or more advanced degrees). The 50-59 year age group on the other hand is probably nearing the end of their careers, looking forward to retirement. They are far from their initial training in years and may not be interested in pursuing any further education at this time. They are familiar and comfortable with a more traditional form of evaluation rather than quality assurance evaluation.

Adding support for the theoretical explanation of the findings of the study are the surprise findings that 27 out of the 34 subjects in the final sample (80%) did not know how their unit scored in terms of quality assurance. In reviewing the data, half of the 17 subjects had less than 5 years experience, but the other half were spread across all the categories of nursing experience. Are these nurses who have no knowledge perhaps on the evening shift then, or are they perhaps only part-time? These answers are plausible, but there is another answer.

The other more theoretically related answer has to do with evaluation and sensitivity to information dissonant with one's own opinion or concept. 'According to another part of Festinger's (1957) cognitive dissonance theory, people tend to avoid things or not be sensitive to information which may increase their dissonance. In this case, rather than changing their cognition about the quality assurance program (for example, knowledge of unit scores), nurses may tend to avoid information such as unit scores which would increase their dissonance. This preserves their positive self evaluation of that care that they give. This factor is supported by Johnson (1968) who found that smokers tend to avoid informatin about the hazards of smoking which would increase their dissonance about the fact that they smoke.

Conclusions and Implications

Based on the findings of the study, and the discussion, it can be concluded that nurses will exhibit negative attitudes about quality assurance if there is a discrepancy between a negative formal evaluation of care given and a positive self evaluation of care. A second conclusion is that nurses may instead simply choose to ignore the feedback produced by the formal evaluation

and by being insensitive to this information avoid the dissonance caused by knowledge of a negative evaluation.

An implication from the findings of the study is that it is important to look at nurses' attitudes. Nursing administration should be aware that nurses' attitudes do influence their behavior, and that knowledge of attitudes may be an essential prerequisite to the success of any program. Another implication is that feedback is important. As evidenced by the findings, negative feedback can produce negative attitudes or insensitivity to information rather than influence behavior changes in terms of patient care as originally intended.

Another implication, given the presence of dissonance, is that there needs to be some effective means found to relieve the dissonance for nurses. Effective behavior change may be the first choice, but nurses may need assistance in knowing how to recognize the dissonance and effectively change their behavior as a means of reducing it.

Recommendations for Further Study

Based on the findings, conclusions, and implications of this study, several additional studies would be appropriate. The following studies are recommended:

- 1. Replication of the study using an experimental design utilizing experimental and control groups in which the experimental group is specifically informed of unit quality assurance scores and the control group is not.
- 2. Replication of the study using the above design and in addition using a test-retest program.
- . 3. Replication of the study using age as a blocking variable.
- 4. Replication of the study with the same population at a later period in time, such as 1 year.
- 5. Replication studies to provide additional tool validity and reliability.
- 6. Replication of the study with adaptation of the specific portion of the tool to apply to other quality assurance programs currently in use.
- 7. Replication of the study with a supervisory and/or administrative sample.



Personal Data Questionnaire

This research study consists of two parts—a back—ground information section and an attitude questionnaire concerning quality assurance. This information will be treated as strictly confidential, but you may decline to answer any questions if you wish. Please do not put your name on any of the forms.

Background Information

Please indicate by a checkmark (\checkmark) the appropriate answer for each of the items below.

Age:						
20-29		50-59				
30-39		60 & up				
40-49						
Education-l Prepa	aration:					
A.D	Dip	B.S	M.S			
Years of Nursing	Experience:					
Below 5 years		15-19 years	_			
5-9 years		20+ years	_			
10-14 years						
Do you know what your unit wuality assurance scores (Medicus) usually are (i.e., for last month)?						
No	Yes					

Quality Assurance Opinionnaire

The following questionnaire consists of 33 items relating to quality assurance in general and to the Medicus system of quality assurance (which your hospital uses) specifically. There is no right or wrong answer to any of the items. Please read each item carefully and check (\checkmark) the answer which most closely identifies how you feel about the statement.

Please answer according to the following key:

- 1--strongly agree
- 2--disagree
- 3--agree
- 4--strongly agree

	Improvement of the quality of patient care is an important	1	2	. 3	4
	part of nursing.	_	-	J	4
2.	Appraisal of the quality of care serves as a stimulus for the improvement of care.	1	2	3	4
3.	Standards of care are an integral part of the appraisal of quality of care.	1	2	3	4
4.	The primary purpose for evaluation of the quality of care is improvement of care rather than regulation or control of nurses.	1	2	3	4
5.	Documentation of care given is needed to evaluate the quality of care.	1	2	3	4
6.	Review of quality of care does not include review of the chart.	1	2	3	4
7.	The responsibility for provision of quality care rests on each individual nurse.	. 1	2	3	4

Please answer according to the following key:

	<pre>1strongly disagree 2disagree 3agree 4strongly agree</pre>				
8.	One of the valid measures of the quality of nursing care is based on the nursing activities performed in the actual delivery of nursing care to individual patients.	1	2	3	4
9.	Review of the quality of care is relevant to nursing practice.	1	2	3	4
10.	Quality is assured by implementing an evaluation system to assure that delivered care is at the optimum achievable degree of excellence.	1	2	3	4
11.	The need for registered nurses to create a change in their functions to include quality assurance review is one of the most urgent matters facing the profession today.	1	2	3	4
12.	Formal appraisal of the quality of nursing care is not beneficial.	1	2	3	4
13.	Quality of care evaluation improves patient care by leading to changes in the behavior of staff nurses.	1	2	3	4
14.	Because nursing performance is so closely associated with the care that patients receive, if nurses are to provide quality care to patients, they must know the factors that affect the delivery of that nursing care.	1	2	3	4
15.	Quality control (evaluation of the quality of care) is not one of the most important aspects of nursing.	1	2	7	Δ

Please answer according to the following	key:			
<pre>1strongly disagree 2disagree 3agree</pre>				
4strongly agree				
16. Quality control is only effective when staff nurses have input into what is to be measured.	1	2	3	4
Medicus Survey				
17. Quality monitoring assesses the quality of the medical record rather than the actual quality of care delivered.	1.	2	3	4
18. Monthly quality scores reflect accurately the quality of care that is being given on the individual units.	1	. 2	3	4
19. The aspects of care that quality assurance measures each month are appropriate ones, i.e., the plan of nursing care is formulated, the physical needs of the patient are attended, the non-physical needs are attended, nursing care objectives are evaluated, unit procedures are followed, and the delivery of nursing care is facilitated by administrative and managerial services.	1	2	3	4
20. The persons doing the quality monitoring judge fairly.	1	2	3	4
21. The purposes of the Medicus quality monitoring program are primarily educational and constructive (not punitive or destructive).	1	2	3	4

Please answer according to the following key	Please	answer	according	to	the	following	kev:
--	--------	--------	-----------	----	-----	-----------	------

	<pre>1strongly disagree 2disagree 3agree 4strongly agree</pre>				
22.	Each of the questions asked in a quality monitoring observation implies an expected level or standard of care.	1	2	3	4
23.	The Medicus tool is an evaluation tool specifically designed to measure the quality of nursing care on the individual patient care units.	1	2	3	4
24.	Quality observations are done on the units much too frequently.	1	2	3	4
25.	Answering the questions for quality monitoring is too time consuming and/or inconvenient for the nurses who are giving care.	1	2	3	4
26.	The present format of quality monitoring (Medicus) allows for accurate description of the quality of the patient care given.	1	2	3	4
27 .	The Medicus system of quality assurance includes all the pertinent elements involved in quality care.	1	2	3	4
28.	The questions asked on the present quality assurance questionnaires are confusing and difficult to understand for the nurses who must answer them.	1	2	3	A
	CHEM.	_	4	2	4

Please answer according to the following key:

	<pre>1strongly disagree 2disagree 3agree 4strongly agree</pre>				
29.	Areas of poor nursing care receive more emphasis than those of good nursing care with the present (Medicus) format.	1	2	3	4
30.	The quality assurance rounds made presently on the units are not frequent enough to really evaluate nursing care.	1	2	3	4
31.	Overall, the present system of quality assurance is a positive way to evaluate the nursing care given on the units.	1	2	. 3	4
32.	The present system of quality assurance is very helpful in identifying specific kinds of nursing performance which need improvement.	1	2	3	4
33.	The present system of evaluation allows for impartial and fair treatment of all units with respect to the quality of care given.	1	2	3	4

APPENDIX B

TEXAS WOMAN'S UNIVERSITY Box 23717, TWU Station Denton, Texas 76204

1810 Inwood Road Dallas Inwood Campus

HUMAN SUBJECTS REVIEW COMMITTEE

Name of	Investigator:_	Margaret Fox	Center: Dallas
Address:	6761 Larman	da #235	Date: April 29, 1980
	Dallas, Te	xas 75231	1
-			
Dear	Ms. Fox		*
Your	r study entitle	ed Attitudes of Murses	About Quality Assurance
Pleath, Esignature subjects jects Rev below. F	al's rights. use be reminded ducation, and es indicating i in your studie dew Committee urthermore, ac ttee is requir	i that both the Universelfare regulations to informed consent be obtained. These are to be find any exception to the cording to DHEW regulated if your project characteristics.	tained from all human led with the Human Sub- is requirement is noted ations, another review by anges.
•	-		ur study are noted below:
pens	ation is provi	nsent form: No medica ded to subjects by the rom participation in r	University as a
OF M	to informed co Y QUESTIONNAIF SUBJECT IN TH	nsent form: I UNDERSI E CONSTITUIES MY INFOF IS RESEARCH.	TAND THAT THE FETURN FED CONSENT TO ACT

	The filing of signatures of subject Review Committee is not required.	s with the Human Subjects
*	Other:	
	No special provisions apply.	
		Sincerely, Etelle Tarts Chairman, Human Subjects Review Committee
		at Dallas Center

* In your explanation letter to your subjects, include reassurance that their participation, lack of participation, or dropping out of the study will in no way affect their jobs.

PK/smu/3/7/20

TEXAS WOMAN'S UNIVERSITY

DENTON. TEXAS 76204

THE GRADUATE SCHOOL

July 30, 1980

Miss Margaret Fox 6761 Larmanda, #235 Dallas, Texas 75231

Dear Miss Fox:

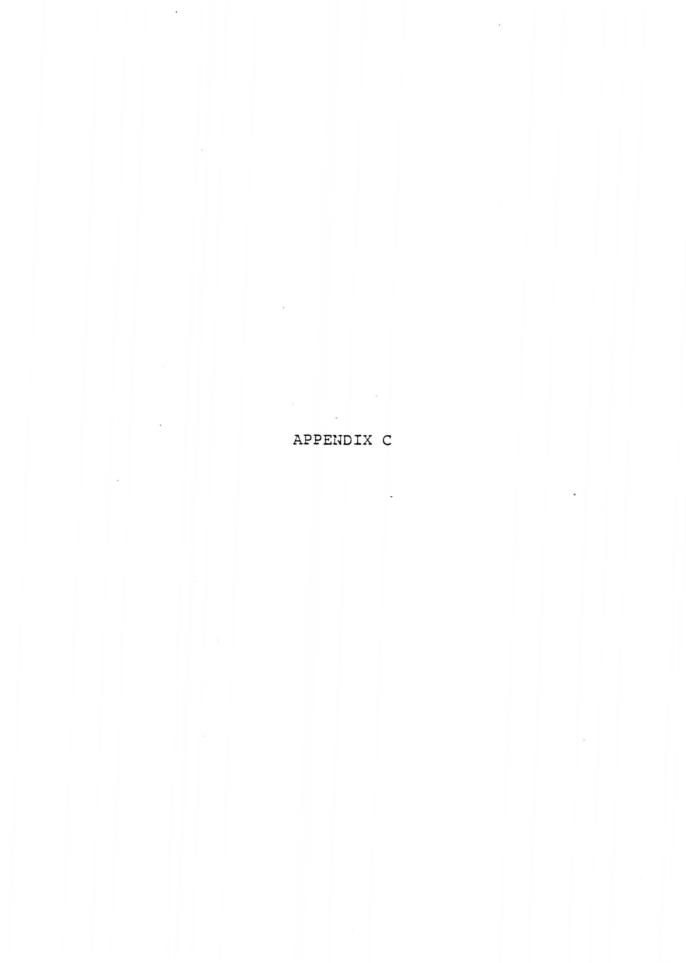
I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Margaret J. Ferrell
Acting Provost of the
Graduate School

MF:d1

cc Ms. Estelle Kurtz Dr. Anne Gudmundsen Graduate Office



TEXAS WOMAN'S UNIVERSITY COLLEGE OF NURSING DENTON, TEXAS 76204

DALLAS CENTER 1810 IM/OOD ROAD DALLAS, TEXAS 75235

THE_

HOUSTON CENTER 1130 M. D. ANDERSON BLVD. HOUSTON, TEXAS 77025

AGENCY PERMISSION FOR CONDUCTING STUDY*

Woman's University, the privilege of its facilities in order to study the following problem: The problem of study will be to determine if the evaluated level of care on a particular patient care unit influences the attitudes of nurses on the unit toward a quality assurance program. The conditions mutually agreed upon are as follows: 1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a completed report to be circulated through interlibrary loan. 5. Other	GRANTS TO Margaret A. Fox. R.N.
The problem of study will be to determine if the evaluated level of care on a particular patient care unit influences the attitudes of nurses on the unit toward a quality assurance program. The conditions mutually agreed upon are as follows: 1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. After wants a completed for the agency is completed. If the agency is (villing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Litelle Literty	a student enrolled in a program of nursing leading to a Master's Degree at Texas
The problem of study will be to determine if the evaluated level of care on a particular patient care unit influences the attitudes of nurses on the unit toward a quality assurance program. The conditions mutually agreed upon are as follows: 1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a conference with the student when the report is completed. Also wants a conference to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Litelle Larth	
ated level of care on a particular patient care unit influences the attitudes of nurses on the unit toward a quality assurance program. The conditions mutually agreed upon are as follows: 1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a completed of the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Signature of Agency Personnel	ing problem:
The conditions mutually agreed upon are as follows: 1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (wants) (does not want) a conference with the student when the report is completed. Also wants a conference with the student when the report is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Light Alan With Alan (III)	ated level of care on a particular patient care unit influ- ences the attitudes of nurses on the unit toward a quality
1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a copy of the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Could be a final report. Signature of Agency Personnel Could be a final report.	assarance program.
1. The agency (may) (may not) be identified in the final report. 2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a copy of the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Could be a final report. Signature of Agency Personnel Could be a final report.	The conditions mutually acreed upon are as follows:
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a copy of the completed report. 4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel Light Annut final (ii) Extelle Light	The conditions industry agrees upon the to lottens.
(may) (may not) be identified in the final report. 3. The agency (vants) (does not want) a conference with the student when the report is completed. Also wants a completed report. 4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel (1) 14 1/14/14/14/14/14/14/14/14/14/14/14/14/14	1. The agency (may) (may not) be identified in the final report.
when the report is completed. Also wants a completed report 4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel **Illa Allot I Aug (I) Extelle & Kurt	 The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan. 5. Other Signature of Agency Personnel **Illumination** Signature of Agency Personnel **Extelle & Kurth**	when the report is completed. Also wants a fatil
Signature of Agency Personnel 1/341/14/14/14/14/14/14/14/14/14/14/14/14/1	4. The agency is (villing) (unvilling) to allow the completed report
Signature of Agency Personnel 1/341/14/14/14/14/14/14/14/14/14/14/14/14/1	5 Othor
1/1341/14/14/14/11 Estelle Leurt	5. Other
1/341/14/14/11 Estelle Kurt	
Maganut 1 the Will Estelle & Kurt	Date: 5/25/m
Signature of Student Signature of Faculty Advisor	Myganut Ashi (1) Estelle & Kurt
	Signature of Student Signature of Faculty Advisor
Fill out and sign three copies to be distributed as follows: Original-Student; First copy - agency; Second copy - TWU College of Nursing.	First copy - agency: Second copy - TWU College of Nursing.

GP:GEN 13 07026074 cd APPENDIX D

TEXAS WOMAN'S UNIVERSITY COLLEGE OF NURSING

Information for Subjects Concerning Informed Consent for Participation in Research

As a participant in the research study being conducted by Margaret Fox, R.N., you will be asked to answer a 33-item questionnaire concerning nurses' attitudes about quality assurance. In addition to answering the questionnaire, you will be asked to provide general information about yourself, i.e., your age, educational preparation, years of nursing experience. If you are uncomfortable providing this type of information about yourself, you may leave any of the personal questions blank. There are no right or wrong answers to any of the questions, you may withdraw from the study at any point, and none of your individual responses will be identified in any way.

The procedure described in the first paragraph contains the following risk: improper release of data with loss of anonymity. To avoid this risk, your name will not appear on the data sheet or questionnaire. Data sheets and questionnaires will be coded by letter or number only, and will be separated after completion.

Potential benefits to you from participation in the study include greater knowledge about your attitudes toward quality assurance, greater attention to these attitudes by nursing administration, and as a result the possibility of increased participation in the formulation of standards and goals of nursing care in the hospital.

No medical service or compensation will be provided for subjects by the university as a result of injury from participation in research. The study will be explained to you orally, and an offer made to answer all your questions. If alternative procedures are more advantageous to you they will be explained. You may terminate participation in the study at any time. Your participation in the study, lack of participation in the study, or dropping out of the study at any time will in no way affect your job or status with your employer.

I UNDERSTAND THAT MY RETURN OF THIS QUESTIONNAIRE

CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN

THIS RESEARCH.



TEXAS WOMAN'S UNIVERSITY COLLEGE OF NURSING

Oral Presentation

My name is Margaret Fox, and I am a graduate student in Community Health Nursing at Texas Woman's University. As part of my thesis, I have developed a tool to obtain nurses' attitudes about quality assurance. I am now conducting research using the questionnaire, and since your hospital has a quality assurance program (the Medicus Program), I would like to have you answer the questionnaire.

In addition to answering the questionnaire about quality assurance, I would like to obtain general information from you about your age, type of educational preparation, years of nursing experience, and whether or not you know generally how your unit scores on quality assurance.

There is no space on the questionnaire for your name. Please do not identify yourself by name; each of the questionnaires is coded so that your attitudes can be correlated with the general information. You will be asked to read a cover letter attached to the questionnaire, and the cover letter contains basically the same information as I have outlined here. There are no right or wrong answers to any of the questions, only your opinions. You

may withdraw from the research now or at any time if you wish. Withdrawal from the research will not affect your employment in any way. Nursing administration at your hospital will only know the results as group scores.

REFERENCES CITED

- Abdellah, F. G. New directions in patient centered nursing: Guidelines for systems of service, education, and research. New York: The Macmillan Co., 1973.
- Adams, J. S. Reduction of cognitive dissonance by seeking consonant information. <u>Journal of Abnormal and Social</u> Psychology, 1961, 62, 74-78.
- Adams, J. S., & Jacobsen, P. R. Effects of wage inequities on work quality. <u>Journal of Abnormal and</u> Social Psychology, 1964, 69, 19-25.
- Adams, J. S., & Rosenbaum, W. B. Relationship of worker productivity to cognitive dissonance about inequities. Journal of Applied Psychology, 1962, 46, 161-164.
- American Nurses' Association. A plan for implementation of the standards of nursing practice. Kansas City, Missouri: American Nurses' Association, 1975.
- Anderson, I. F., Taylor, J., & Holloway, R. The consumer and his alternatives: An experimental approach. The Journal of Marketing Research, 1966, 3, 62-67.
- Andrews, I. R. Wage inequities and job performance: An experimental study. <u>Journal of Applied Psychology</u>, 1967, 51, 39-45.
- Aronson, E. The theory of cognitive dissonance: A current perspective. In L. Berkowitz (Ed.), Advances in experimental social psychology. New York: Academia Press, 1969.
- Arrowood, A. J., Wood, L., & Ross, L. Dissonance, self-perception, and the perception of others: A study in cognitive cognitive dissonance. <u>Journal of Experimental Social Psychology</u>, 1970, 6, 304-315.
- Bonaparte, B. Ego defensiveness, open-closed mindedness, and nurses' attitude toward culturally different patients. Nursing Research, 1979, 28(3), 166-172.

- Bramel, D. A dissonance theory approach to defensive projection. Journal of Abnormal and Social Psychology, 1962, 64, 121-129.
- Bramel, D. Selection of a target for defensive projection.

 Journal of Abnormal and Social Psychology, 1963, 66,
 318-324.
- Brooks, A. Public and professional attitudes toward cancer: A view from Great Britain. <u>Cancer Nursing</u>, 1979, 2(6), 453-460.
- Brown, B. Quality assurance (editorial). Nursing Administration Quarterly, 1977, 1, v.
- Byrkit, D. R. <u>Elements of statistics</u>. New York: D. Van Nostrand Co., 1975.
- Cardozo, R. N. An experimental study of customer effort, expectation, and satisfaction. <u>Journal of Marketing</u> Research, 1965, 2, 244-249.
- Carlsmith, J. M., Collins, B. E., & Helmreich, R. K. Studies in forced compliance: The effect of pressure for compliance on attitude change produced by face to face role playing and anonymous essay writing. Journal of Personality and Social Psychology, 1966, 4, 1-13.
- Cohen, A. R. A dissonance analysis of the boomerang effect. Journal of Personality, 1962, 30, 75-88.
- Cooper, J., & Duncan, B. Cognitive dissonance as a function of self-esteem and logical inconsistency. <u>Journal of Personality</u>, 1971, <u>39</u>(2), 289-302.
- Cooper, J., & Worchel, S. The role of undeserved consequences in arousing cognitive dissonance. <u>Journal of Personality and Social Psychology</u>, 1970, <u>16</u>, 199-206.
- Cummings, W., & Venkatesen, M. Cognitive dissonance and consumer behavior: A review of the evidence. <u>Journal</u> of Marketing Research, 1976, <u>13</u>(3), 303-308.
- Davidson, S. PSRO: Utilization and audit in patient care. St. Louis: C. V. Mosby Co., 1976.

- Davidson, S., Burleson, B., Crawford, J., & Christofferson, S. Nursing care evaluation: Concurrent and retrospective review criteria. St. Louis: C. V. Mosby Co., 1977.
- Davis, A. Measuring quality: Development of a blueprint for a quality assurance program. <u>Supervisor</u> Nurse, 1977, 8, 17-26.
- Denmark, F., & Ritter, B. Differential cognitive dissonance and decision latency. <u>Journal of Social</u> Psychology, 1972, 86, 69-74.
- Deutsch, M., & Solomon, L. Reactions to evaluations by others as influenced by self-evaluation. Sociometry, 1959, 22, 93-112.
- Devine, B. A. Old age stereotyping: A comparison of nursing staff attitudes toward the elderly. <u>Journal</u> of Gerontological Nursing, 1980, 6, 25-32.
- Dyer, E. Can job performance be predicted from biographical, personality, and administrative climate interventories? Nursing Research, 1972, 21, 294-304.
- Dyer, E. What are the relationships of quality patient care to nurses' performance, biographical, and personality variables? Psychological Reports, 1975, 36, 255-266.
- Engel, J. F. Are auto purchasers dissonant consumers? Journal of Marketing, 1963, 27, 55-58.
- Engel, J. F. Further pursuit of the dissonant consumer: A comment. Journal of Marketing, 1965, 29, 33-34.
- Feather, N. T. Cognitive dissonance, sensitivity, and evaluation. Journal of Abnormal and Social Psychology, 1963, 66, 157-163.
- Festinger, L. A theory of cognitive dissonance. Stanford, California: Stanford University Press, 1957.
- Festinger, L., & Carlsmith, J. M. Cognitive consequences of forced compliance. <u>Journal of Abnormal and Social Psychology</u>, 1959, <u>58</u>, 204-210.

- Festinger, L., & Katz, D. Research methods in the behavioral sciences. New York: Holt, Rinehard, and Winston, 1953.
- Friedman, A., & Goodman, P. Wage inequities, self-qualifications, and productivity. Organizational Behavior and Human Performance, 1967, 2, 406-407.
- Galion, A., & Watts, W. A. The time of measurement parameters in studies of cognitive dissonance reduction. Journal of Personality, 1967, 35, 521-534.
- Goethals, G., & Cooper, J. Role of intention and post behavioral consequence in arousal of cognitive dissonance. Journal of Personality and Social Psychology, 1972, 23, 293-301.
- Goethals, G., Cooper, J., & Naficy, A. Role of foreseen, foreseeable, and unforeseeable behavioral consequences in the arousal of cognitive dissonance. Journal of Personality and Social Psychology, 1979, 37, 1179-1185.
- Gold, H., Jackson, M., Sachs, B., & Van Meter, M. J. Peer review--a working experiment. Nursing Outlook, 1973, 21(10), 634-636.
- Glass, D. C. Changes in liking as a means of reducing a discrepancy between self-esteem and aggression. Journal of Personality, 1964, 32, 531-549.
- Gleason, J., & Katkin, E. The effects of cognitive dissonance on heart rate and electrodermal response. Psychophysiology, 1976, 16(2), 180-181.
- Hill, B. S. The missing ingredient in quality assurance programs. Supervisor Nurse, 1979, 10(11), 24-28.
- Holloway, R. J. An experiment in consumer dissonance. Journal of Marketing, 1967, 31, 39-43.
- Hopkins, K., & Glass, G. Basic statistics for the behavioral sciences. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1978.

- Johnson, R. E. Smoking and reduction of cognitive dissonance. Journal of Personality and Social Psychology, 1968, 9, 260-265.
- Kennedy, J. A. The meaning of evaluation. Nursing Outlook, 1961, 9, 439-440.
- Kerlinger, F. Foundations of behavioral research. New York: Holt, Rinehart, and Winston, Inc., 1973.
- Kramer, C. Y. Extension of multiple range test to group
 means with unequal numbers of replications. Biometrics,
 1956, 57, 649-655.
- Krech, D., Crutchfield, R., & Ballachey, E. The individual
 in society. New York: McGraw-Hill Co., 1962.
- Kreitler, H., & Kreitler, S. Unhappy memories of the
 "Happy past": Studies in cognitive dissonance. British
 Journal of Psychology, 1968, 59(2), 157-166.
- LaMonica, E. The nurse and the aging client: Positive attitude formation. Nurse Educator, 1979, $\underline{4}(6)$, 23-26.
- Larocco, S., & Polit, D. F. A study of nurses' attitudes toward mandatory continuing education for relicensure. Nursing Research, 1978, $\underline{9}(1)$, 25-35.
- Linder, D., Cooper, J., & Jones, E. Decision freedom as a determinant of the role of incentive magnitude in attitude change. Journal of Personality and Social Psychology, 1967, 6, 248-254.
- Martin, P. Haste, resistance, and the nursing audit. The Australian Nurses' Journal, 1979, 9(2), 30-42.
- Mayers, M. Quality assurance for patient care: Nursing perspectives. New York: Appleton-Century-Crofts, 1977.
- Miller, A. E. The role of the nurse: Nurses' attitides toward their patients. <u>Nursing Times</u>, 1979, <u>75</u>(45), 1929-1933.

- Miller, J. Cognitive dissonance in modifying families' perceptions. American Journal of Nursing, 1974, 74 (3), 1468-1470.
- Nel, E., Helmreich, R., & Aronson, E. Opinion change in the advocate as a function of the persuasibility of his audience: A clarification of the meaning of dissonance. Journal of Personality and Social Psychology, 1969, 12, 117-124.
- Nicholls, M. E. Quality control in patient care. American Journal of Nursing, 1974, 74(3), 456-459.
- Nicholls, M. E. <u>Nursing standards and nursing process</u>. Wakefield, Massachusetts: Contemporary Publishers, 1977.
- Pankratz, L., & Pankratz, D. Nursing autonomy and patients' rights: Development of a nursing attitude scale. Journal of Health and Social Behavior, 1974, 15(3), 211-216.
- Phaneuf, M., & Wandelt, M. Quality assurance in nursing. Nursing Forum, 1974, 13, 328-345.
- Polit, D., & Hungler, B. <u>Nursing research: Principles</u> and methods. Philadelphia: J. B. Lippincott Co., 1978.
- Ramey, I. G. Setting nursing standards and evaluating care. <u>Journal of Nursing Administration</u>, 1973, <u>3</u>(3), 27-35.
- Rappaport, H., Reznikoff, M., Glueck, B., Honeyman, M., & Eisenberg, H. Smoking behavior in offspring of heart disease patients: A response to cognitive dissonance. Journal of Consulting and Clinical Psychology, 1968, 32(4), 494-496.
- Robb, S. Attitudes and intentions of baccalaureate nursing students toward the elderly. Nursing Research, 1979, 28(1), 43-50.
- Rosen, A., & Abraham, G. E. Attitudes of nurses toward a performance appraisal system. <u>Nursing Research</u>, 1966, <u>15</u>(4), 317-322.

- Schmadl, J. C. Quality assurance: Examination of the concept. Nursing Outlook, 1979, 27, 462-465.
- Sherwin, D. The meaning of control. In M.S. Wadin (Ed), The nature and scope of management. Chicago: Scott, Foresman, and Co., 1966.
- Totman, R. Cognitive dissonance in the placebo treatment: A pilot experiment. <u>British Journal of Medical</u> <u>Psychology</u>, 1976, 49(4), 393-400.
- Totman, R., Reed, S., & Craig, J. Cognitive dissonance, stress, and virus induced common colds. <u>Journal of Psychosomatic Research</u>, 1977, 21(1), 55-63.
- Warren, D. Quality assurance: Insurance against malpractice. <u>International Nursing Review</u>, 1979, 26(2), 49-51.
- Wilson, D. T. Ability evaluation, post decision dissonance, and co-worker attractiveness. <u>Journal of Personality and Social Psychology</u>, 1965, <u>1</u>, 486-489.
- Zimmer, M. J. Quality assurance for outcomes of patient care. Nursing Clinics of North America, 1974, 9(2), 305-315.