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ACCEPTABILITY OF THE ROLE OF THE PHYSICIAN'S  
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THE UNIVERSITY OF OKLAHOMA  
GRADUATE COLLEGE

ACCEPTABILITY OF THE ROLE OF THE PHYSICIAN'S ASSOCIATE  
TO THE REGISTERED NURSE IN AN  
INSTITUTIONAL SETTING

A DISSERTATION  
SUBMITTED TO THE GRADUATE FACULTY  
in partial fulfillment of the requirements for the  
degree of  
DOCTOR OF PUBLIC HEALTH

BY  
CHARLES B. HAMILTON  
Oklahoma City, Oklahoma  
1973

ACCEPTABILITY OF THE ROLE OF THE PHYSICIAN'S ASSOCIATE  
TO THE REGISTERED NURSE IN AN  
INSTITUTIONAL SETTING

APPROVED BY

Mitchell V. Owens  
Charles M. Cameron Jr.  
Alton S. Lytle  
Frank L. Hanson  
Robert W. Kettner

DISSERTATION COMMITTEE

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**To Betty and Staci**

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	viii
LIST OF ILLUSTRATIONS .....	xi
 Chapter	
I. INTRODUCTION .....	1
Statement of the Problem .....	1
Differing Identifications of the Con- cept .....	2
The Health Manpower Issue .....	4
The Solution Dichotomy .....	9
Advancement of the Physician's Asso- ciate Concept .....	13
Proposed Utility of the Physician's Associate .....	16
Manpower for the New Occupation .....	19
Training for this New Occupation .....	23
II. REVIEW OF THE LITERATURE .....	30
Acceptance by Physicians .....	31
Acceptance by Patients .....	33
Role Acceptability by the Physician's Associate .....	34
Acceptance by Other Health Profes- sionals .....	35
III. DESIGN OF THE STUDY .....	39
Hypotheses .....	39
Definitions .....	40
The Settings .....	41
Research Methodology .....	44
Instrumentation .....	45
Pretesting .....	47
The Study Populations .....	48
Collection of Data .....	50
IV. FINDINGS .....	52
Comparison of Nurse Populations .....	53
Cognizance of the Physician's Associ- ate Concept .....	59
Suggestions Related to Training .....	61
Institutionalizing the Physician's Associate .....	67



## TABLE OF CONTENTS--Continued

Chapter	Page
Suggested Placement in Hospital .....	69
Role Relations .....	73
Functions of the Physician's Associ- ate .....	76
Benefits for the Physician's Associ- ate .....	81
Acceptance Related to Nurses' Charac- teristics .....	84
Role of the Physician's Associate .....	91
Need for the Role .....	96
Effect on Delivery System .....	103
Patients' Acceptance .....	108
Professional Relations .....	111
 V. SUMMARY AND CONCLUSIONS .....	 116
Summary .....	116
Conclusions .....	117
Nurses' Expectations and Sugges- tions .....	118
Functions of the Physician's As- sociate .....	121
Relationship of Nurses' Charac- teristics .....	123
Occupational Association .....	125
Significance of this Study .....	129
Recommendations for Future Research .....	130
 SELECTED BIBLIOGRAPHY .....	 132
 APPENDIXES .....	 138
A. Registered Nurse Interview Schedule, Section I .....	138
B. Registered Nurse Interview Schedule, Section II .....	141
C. Interview Plan .....	147

## LIST OF TABLES

Table		Page
1.	Comparison of Registered Nurses in Hospitals With and Without Physician's Associates by Educational Level, 1973 .....	54
2.	Comparison of Registered Nurses in Hospitals With and Without Physician's Associates by Decade of Graduation, 1973 .....	55
3.	Comparison of Registered Nurses in Hospitals With and Without Physician's Associates by Years of Employment, 1973 .....	57
4.	Comparison of Registered Nurses in Hospitals With and Without Physician's Associates by Age, 1973 .....	58
5.	Comparison of Registered Nurses in Hospitals With and Without Physician's Associates by Membership in Professional Associations, 1973 .....	60
6.	Level of Education for Physician's Associates Expected by Nurse Respondents in Hospitals With and Without Physician's Associates, 1973 .....	63
7.	Categories Indicated Most Suitable for Physician's Associate's Training by Nurse Respondents, 1973 .....	65
8.	Comparison of Nurse Populations in Considering a Career Change to Physician's Associate, 1973 .....	66
9.	Reactions Expressed by Nurse Respondents Toward Need for Physician's Associate in Hospital, 1973 .....	68
10.	Most Appropriate Clinical Area for Physician's Associates as Suggested by Nurse Respondents, 1973 .....	70
11.	Least Appropriate Clinical Area for Physician's Associates as Suggested by Nurse Respondents, 1973 .....	71

# LIST OF TABLES--continued

Table	Page
12. Attitude Toward Physician's Associate's Working as First Assistant in Operating Room as Indicated by Nurse Respondents, 1973 .....	73
13. Relationship of Physician's Associate's Role to Nursing Role as Perceived by Nurse Respondents, 1973 .....	74
14. Effect of the Physician's Associate on the Number of Nursing Tasks as Suggested by Nurse Respondents, 1973 .....	75
15. Effect of the Physician's Associate on the Complexity of Nursing Tasks as Suggested by Nurse Respondents, 1973 .....	75
16. Reactions Toward Physician's Associate's Providing Total Patient Care as Indicated by Nurse Respondents, 1973 .....	77
17. Attitude of Nursing Populations Toward Physician's Associate's Functions by Summated Score Mean, Standard Deviation and Range, 1973 .....	79
18. Positional Status of the Physician's Associate in Relation to Registered Nurses as Perceived by Nurse Populations, 1973 .....	82
19. Frequency of Nurses' Responses to Need for Physician's Associate by Status Perception, 1973 .....	84
20. Frequency of Nurses' Responses to Need for Physician's Associate by Years of Employment, 1973 .....	86
21. Frequency of Nurses' Responses to Need for Physician's Associate by Decade of Graduation, 1973 .....	86
22. Frequency of Nurses' Responses to Need for Physician's Associate by Age, 1973 .....	87
23. Frequency of Nurses' Responses to Need for Physician's Associate by Salary Grade, 1973 .....	88

# LIST OF TABLES--continued

Table		Page
24.	Frequency of Nurses' Responses to Need for Physician's Associate by Clinical Service, 1973 .....	90
25.	Frequency of Nurses' Responses to Need for Physician's Associate by Nursing Rank, 1973 .....	91
26.	Frequency of Nurses' Responses to Need for Physician's Associate by Profes- sional Association Membership, 1973 .....	92
27.	Variation in Views Toward Physician's Associate Concept by Nurse Respond- ents, 1973 .....	93

## LIST OF ILLUSTRATIONS

Figure	Page
1A. Response to Need for Physician's Associate .....	97
1B. Intensity of Feeling Toward Need for Physician's Associate .....	97
2A. Response to Physician's Associate as Much Needed Assistant .....	99
2B. Intensity of Feeling Toward Physician's Associate as Much Needed Assistant .....	99
3A. Response to Training More Nurses .....	100
3B. Intensity of Feeling Toward Training More Nurses .....	100
4A. Response to Decreasing the Number of Physician's Associates Educated .....	102
4B. Intensity of Feeling Toward Decreasing the Number Educated .....	102
5A. Response to Physician's Associate as Valuable Team Member .....	104
5B. Intensity of Feeling Toward Physician's Associate as Valuable Team Member .....	104
6A. Response to Improvement of Patients' Care .....	105
6B. Intensity of Feeling Toward Improvement of Patients' Care .....	105
7A. Response to Lessening the Quality of Medicine .....	107
7B. Intensity of Feeling Toward Lessening the Quality of Medicine .....	107
8A. Response to Patients' Lacking Confidence .....	109
8B. Intensity of Feeling Toward Patients' Lacking Confidence .....	109

# LIST OF ILLUSTRATIONS--Continued

Figure	Page
9A. Responses to Willingness of Patients to Receive Medical Care .....	110
9B. Intensity of Feeling Toward Willingness of Patients to Receive Medical Care .....	110
10A. Responses to Physician's Associate Pro- viding Services to Family .....	112
10B. Intensity of Feeling Toward Physician's Associate Providing Services to Family .....	112
11A. Response to Interference with Profes- sional Relationship .....	113
11B. Intensity of Feeling Toward Interference with Professional Relationship .....	113
12A. Response to Infringement on Nursing Role .....	115
12B. Intensity of Feeling Toward Infringement on Nursing Role .....	115

ACCEPTABILITY OF THE ROLE OF THE PHYSICIAN'S ASSOCIATE  
TO THE REGISTERED NURSE IN AN  
INSTITUTIONAL SETTING

CHAPTER I

INTRODUCTION

Statement of the Problem

The recent growth of programs for the academic training of physician's associates and the increasing introduction of associates into health care institutions in the United States necessitate objective study designed to determine the relative acceptance of this new health worker by registered nurses in view of the potentiality of interprofessional problems. The effective utilization of this new member of the health care team is certainly contingent on the development of complementary working relationships.

Although considered by many to be of great import, registered nurses' perceptions of the physician's associate concept have been largely undetermined in any systematic way. This study will explore registered nurses' attitudes toward the physician's associate concept, the functions performed by the physician's associate and organizational relationships.

### Differing Identifications of the Concept

Since the literature is confusing with the array of terminology currently used to refer to these allied health professionals, some clarification for this study is essential. Both "physician's assistant" and "physician's associate" are frequently used today as the encompassing terms, but there is dissension over each usage. A person who can exercise independent judgment is, perhaps, more than an "assistant"; but the term "associate" is not well accepted by some physicians for it seems to imply the person is a physician.

For the purposes of this study, the terms "physician's assistant" and "physician's associate" will be considered interchangeable without attempting a distinction on the basis of level of skill. The generic term "physician's associate" has received primary usage in this paper and in actual data collection solely to limit misunderstanding among the respondents; for in preliminary investigation, it was discovered that in the one hospital having these health workers all identified themselves as "physician's associates." This logically resulted from their graduation from training programs entitled "Physician's Associate Program."

In one attempt to resolve this inconsistency in terminology, Dr. Silver has suggested a new neutral term. He cites such terms: "paramedical personnel," "paraprofessionals," "auxiliary health personnel," "health care assistant," "physician's assistant," "physician's associate," "adjunct



physician," "physician support personnel," "paraphysician," "allied health personnel," and "A, B, and C Assistants" as being imprecise, cumbersome, and possibly value-laden. His proposed generic name is--"syniatrist," which is defined as "an individual practicing in association, union or together with a physician." He further suggests that specificity may be easily added by using prefixes designating the area or specialty of practice and suffixes denoting the relationship of the syniatrist to the physician.<sup>1</sup>

Perhaps of these above terms, the "A, B, and C Assistants" need further explanation. In an effort to contribute some lucidity to the prevalent confusion, the Board of Medicine of the National Academy of Sciences in 1970 with their "Report of the Ad Hoc Panel on New Members of the Physicians' Health Team" categorized the assistants based on levels of skill. The Type A Assistant, having the broadest theoretical medical knowledge, is distinguished by his "ability to integrate and interpret findings" and to "exercise a degree of independent judgment." The Type B Assistant offers advanced skills in one clinical specialty and is not prepared for a broad range of medical care. The Type C Assistant, lacking the level of medical knowledge of the Type A Assistant, performs supervised tasks within a more restricted

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<sup>1</sup>Henry K. Silver, "The Syniatrist--A Suggested Nomenclature and Classification for Allied Health Professionals," Journal of the American Medical Association, CCXVII (September, 1971), p. 1368.

range.<sup>1</sup>

### The Health Manpower Issue

Health care providers and health care institutions in the United States are currently experiencing much vocal attack by those who perceive an apparent shortage of health services. A greater consumer demand for health services, an increased population, changed attitudes, improved financial mechanisms, technological advancement and many other factors have contributed to this situation. Concurrently, glaring problems of health care are also painfully visible even though in the United States medical knowledge and skills are excellent and perhaps unsurpassed by any other country. These problems include a high infant mortality rate, life expectancy rates that are ranked below other countries, the continuing prevalence of many preventable diseases, and inequities in health care to various sectors of the country. Due to the ever-increasing demands for health care and our recognized deficiencies, major efforts are now being conducted to examine our patterns for delivery of health services. Central to the issue is the availability of health manpower, particularly physicians; for the continuance of these problems is often credited to lack of health manpower, but quantification of this relationship is difficult. The American Medical

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<sup>1</sup>National Academy of Sciences, New Members of the Physician's Health Team: Physician's Assistants, Washington, D.C., 1970, pp. 3-4.

Association's Council on Medical Education and Council on Health Manpower have added necessary perspective by insisting that other influences, such as social and economic conditions; racial and ethnic problems; housing; varying levels of health knowledge and other forces, in addition to inadequate physicians' services, have their impact.<sup>1</sup> However, supply and demand continue to be closely scrutinized and debated from various viewpoints, for manpower is felt by many persons involved in health care to be the most crucial of the health resources<sup>2</sup> and its provision to be one of the greatest challenges facing the health field and the nation.<sup>3</sup>

There is agreement, none the less, that the noticeable inequity of physician manpower can be partially attributed to geographic and specialty distribution. Obviously, there is an unequal geographic distribution of physicians resulting from licensure practices, urban/rural preferences, economic determinants and regional location patterns in the United States. Also, specialty distribution as influenced by the complexities of scientific advancement and the asso-

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<sup>1</sup>Council on Medical Education, and the Council on Health Manpower, Joint report to American Medical Association House of Delegates, A Report on Physician Manpower and Medical Education (American Medical Association, June, 1971), p. 4.

<sup>2</sup>William L. Kissick, "Effective Utilization: The Critical Factor in Health Manpower," American Journal of Public Health, LVIII (January, 1968), p. 29.

<sup>3</sup>Irene Butter, "Health Manpower Research: A Survey," Inquiry, IV (December, 1967), p. 5.

ciated financial and status considerations compounds the problem.

In regard to the quantity of manpower needed, a consensus of opinion is nonexistent. Some feel the attention to manpower is unwarranted owing to the currently increasing number of physicians. Supporting this argument, an American Medical Association report concludes that with the existing rate of medical graduates and the continuing influx of foreign trained physicians, the need for physicians will be met at some time in the future, since the growth rate of the medical profession is now exceeding that of the general population.<sup>1</sup> Fein agrees that there is positive evidence of physician growth in excess of population but asserts that this increased demand for health services will not be met without comparable increases in productivity.<sup>2</sup> Hence, some economists are now seriously questioning the usual concept of a shortage of physician number.<sup>3</sup>

In agreement, Kisch states that professionals should look beyond increasing the number of physicians and should seek data on various teams of health personnel that can function with adequacy and quality, would be accessible, would

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<sup>1</sup>Council on Medical Education, and the Council on Health Manpower, op. cit., p. 19.

<sup>2</sup>Rashi Fein, "An Economist's View," Journal of American Medical Association, CCI (September, 1967), p. 172.

<sup>3</sup>Eli Ginzberg, "Physician Shortage Reconsidered," New England Journal of Medicine, CCLXXV (1966), p. 85.

offer personalized care and yet would require fewer traditionally trained professionals.<sup>1</sup> Recombining professionals presently providing facets of health care to perform the same set of tasks could promote the supply of health services and could prove to be more economical.<sup>2</sup>

A division of labor and an effective use of our several million allied health workers is said to be compromised by misplaced concern for numbers rather than job content, professionalism, licensure and certification specifications, inadequate managerial authority and other factors.<sup>3</sup> Although these inherent problems are conceded, the complex issue of the effective utilization of health manpower must be squarely faced.<sup>4</sup> Christman in promoting team collaboration states that models of care should be mainly predicated on the demand systems of patients and that duties and responsibilities should be based on individual competency.<sup>5</sup> In accordance several have called for re-evaluation of the functions of all

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<sup>1</sup>Arnold I. Kisch, "Adapting Health Manpower to Consumer Needs and Cultural Expectations," Inquiry, VIII (September, 1971), p. 42.

<sup>2</sup>Judith R. Lave, Lester B. Lave, and Thomas E. Morton, "Exploration of the Concept," Hospitals, XLV (June, 1971), p. 45.

<sup>3</sup>Anthony Robbins, "Allied Health Manpower--Solution or Problem?" New England Journal of Medicine, CCLXXXVI (April, 1972), p. 918.

<sup>4</sup>Kenneth C. Prestien, "Managing New Careers in Health," Hospital Topics, XLIX (August, 1971), p. 44.

<sup>5</sup>Luther Christman, "Education of the Health Team," Journal of American Medical Association, CCXIII (July, 1970), p. 285.

trained health personnel to meet this challenge of realigning inputs.

Recapitulating, the manpower issue is clouded by uncertainties and inconclusive opinions as to whether concern should be directed toward an insufficiency of manpower, the maldistribution of manpower or the ineffectual usage of personnel. Briney and others suggest that health professionals have possibly been simplistic in their thinking without contemplating other alternatives. Such alternatives could include the reorganization of existing facilities and services for greater efficiency, the encouragement of inactive trained personnel to return to partial or complete employment, the downward transfer of functions, automation of diagnostic procedures, the development of various assistants and aides who would require minimal training, and other innovations.<sup>1</sup>

Those attempting to resolve the manpower issue must examine the potentials of not only developments in manpower but also the emerging innovations in health delivery mechanisms.<sup>2</sup> This is underscored by a report of the National Advisory Council on Health Manpower, which said the crisis

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<sup>1</sup>Henrik L. Blum, et al., Health Planning: Notes on Comprehensive Planning for Health (Berkeley, California: University of California, 1969), p. 17.01.

<sup>2</sup>The several modifications in the training of physicians which have been suggested, such as establishing more medical schools, increasing class size, and shortening the length of training, would merit careful investigation but only within the context of the total health delivery system.

is far from the simple one of numbers even considering the increases obviously needed by a growing population. This report maintains that unless the present patterns and systems of health care are improved even massive increases in cost and manpower will not significantly alter the approaching crisis.<sup>1</sup>

### The Solution Dichotomy

One answer in our quest to provide adequate health services is the plausible alternative of expanding the productivity of the physician. There is general concurrence that delegating some of the functions traditionally associated with the physician can have beneficial impact on the availability of health services. Certainly, it is wasteful of resources for the highly trained physician to expend inordinate amounts of time performing tasks not requiring his level of professional skills. Kissick raises the poignant question of:

. . . how long even a wealthy society can rationalize the investment of years of education and training beyond high school in individuals who will subsequently devote significant portions of their time to routine duties that might be performed very effectively by people trained in half the number of years.<sup>2</sup>

Thus, the optimal use of skills of health personnel appears

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<sup>1</sup>Report of the National Advisory Commission on Health Manpower, I (Washington, D.C.: Government Printing Office, November, 1967), p. 2.

<sup>2</sup>Kissick, op. cit., p. 25.

to be a fruitful objective in the rational reallocation of certain physicians' duties.<sup>1</sup>

This reallocation can be realized through two possible avenues. One of these is with the role expansion of traditional medical personnel, primarily nurses, and the second is with the creation of a new category of health worker.

Robbins submits that this second approach may be easier than attempting to appropriately revise an existing job; for health occupations are restrictively defined, which largely inhibits any alteration in job content.<sup>2</sup> Rousselot, on the other hand, believes that proper incentives, such as increased salaries, higher status and augmented skills, can facilitate the broader utilization of nurses as opposed to creating a new health occupation.<sup>3</sup>

Dr. Estes has offered thoughtful reasoning for establishing another manpower category. Firstly, he indicates that this innovation will promote expansion of health care services. Secondly, he believes that the limited active manpower in the nursing profession should not be further burdened by the delegated tasks; and lastly, he states that it is

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<sup>1</sup>Thomas C. Points, "Guidelines for Development of New Health Occupations," Journal of American Medical Association, CCXIII (August, 1970), p. 1169.

<sup>2</sup>Robbins, op. cit., p. 919.

<sup>3</sup>Louis M. Rousselot, Sarah E. Beard, and Bedford H. Beard, "The Evolution of the Physician's Assistant: Brownian Movement or Coordinated Progress," Bulletin of the New York Academy of Medicine, XLVII (December, 1971), p. 1495.



advantageous to attract more men into the health field through offering this career opportunity.<sup>1</sup>

Expanding the productivity of the physician by means of new health workers is the basis for the rapidly developing concept of training large numbers of assistants in formal programs in order to enhance this efficiency desired of the physician. Other countries have utilized such assistants for many years, but the impetus in the United States probably derives from the experience of the Armed Forces in using medical corpsmen to perform various tasks under the supervision of physicians.

Actually, assistants for physicians are not a recent phenomena, for many physicians through the years have personally trained individuals within their office settings to perform certain discrete functions that are usually considered tasks of the physician.<sup>2</sup> Such assistants trained specifically for a particular office setting have proven valuable to the physician-trainer. However, research is needed regarding the physician's associate, for the experience of those individuals trained on-the-job cannot serve to justify the current rigorous, formal physician's associate training in which some programs award baccalaureate degrees upon completion. This

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<sup>1</sup>Harvey E. Estes, "Physician's Assistants," AORN Journal, XV (January, 1972), p. 99.

<sup>2</sup>Joseph Kadish and James W. Long, "The Training of Physician Assistants: Status and Issues," Journal of the American Medical Association, CCXII (May, 1970), p. 1047.

formal training of assistants is also not without precedent, for other distinctive types of personnel have been directly trained for assisting physicians, such as the medical technologist and the x-ray technician,<sup>1</sup> but it does prepare individuals for increased responsibilities. Sanazaro adds proper emphasis by stating: "Such a major and highly significant departure from the traditional form of medical care in the United States cannot be treated casually."<sup>2</sup>

Formulating new categories of health manpower raises the concern that this is just another simplistic approach, comparable to our often mistaken response to problems by increasing available finances. Thus, there tends to be little disagreement with the demand that potential utilization of new manpower be carefully considered and justified in the context of the delivery system. An unnecessary proliferation of manpower categories is, of course, an irresponsible application of our scarce resources.<sup>3</sup>

The Lysaught Commission, slightly favoring nurse expansion in addressing this question of creating a distinctly new category, has proposed the establishment of a National

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<sup>1</sup>Hu C. Myers, "The Physician's Assistant," The West Virginia Journal, LXV (September, 1969), p. 303.

<sup>2</sup>Paul J. Sanazaro, "Physicians Support Personnel in the 1970's," Journal of American Medical Association, CCXIV (October, 1970), p. 99.

<sup>3</sup>Thomas D. Hatch, "Allied Health Personnel: An Answer to the Manpower Crisis," Hospital Progress, LI (June, 1970), p. 70.

Joint Practice Commission. This Commission, representing the medical and nursing professions, would be charged to analyze and contribute recommendations relating to the congruent roles of physicians and nurses with due cognizance to the possible role of the nurse clinician and the physician's assistant.<sup>1</sup>

#### Advancement of the Physician's Associate Concept

Support for the concept and its rational development has been reflected by many professional organizations. Developmental guidelines have been issued in position statements by the Association of American Medical Colleges, the American Academy of Pediatrics, the American Society of Internal Medicine, the Board of Medicine of the National Academy of Sciences and others.<sup>2</sup>

Involvement of physicians and their professional associations was obviously a fundamental requisite to operationalizing this innovation and promoting its future viability. The American Medical Association is especially involved in providing leadership in shaping developments in the field of allied health manpower. Their concern is with ensuring not only that an innovation is justified but also that personnel who are to provide supportive services to the physician are

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<sup>1</sup>National Commission for the Study of Nursing and Nursing Education, "Assistance for the Physician: Nurse Clinician or P.A.," Occupational Health Nursing, XIX (November, 1971), p. 29.

<sup>2</sup>Laura Mae Kress, "Let's Look at the P.A.: A New Member of the Health Team," Quarterly Review, D.C. Nurses Association, XXXIX (Spring, 1971), p. 10.

properly trained.<sup>1</sup> In line with this concern, the American Medical Association's Council on Health Manpower formulated "Guidelines for Development of New Health Occupations," which was adopted by the American Medical Association House of Delegates in 1969. Evaluating the need for new categories of allied health manpower is accomplished with reference to these Guidelines.

Paralleling this attention to documenting the need for a new category, the American Medical Association's Council on Medical Education is also actively involved as the accrediting body for educational programs in allied health occupations. This Council establishes and maintains educational standards such as those represented in their "Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician." This particular document, used in accrediting some of the Physician's Associate training programs, was prepared by the American Medical Association's Council on Medical Education in collaboration with the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Society of Internal Medicine and was then adopted by the American Medical Association House of Delegates.

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<sup>1</sup>Malcolm C. Todd and Donald F. Foy, "Current Status of the Physician's Assistant and Related Issues," Journal of American Medical Association, CCXX (June, 1972), p. 1715.

In addition to legitimization through interest of established organizations, financial support for training programs was necessary to turn this concept into reality. Initial funding was allocated by the Department of Health, Education, and Welfare. Subsequently, the Comprehensive Health Manpower Training Act of 1971 specified funds for such training programs; and the Office of Special Programs, Bureau of Health Manpower Education, National Institutes of Health was formed to carry out sections of that Act by awarding funds to institutions.<sup>1</sup> Too, the Veterans Administration and the Armed Services are also involved in funding this training.

Additional Federal recognition of the physician's assistant occurred in 1971 with its designation as a new occupation by the United States Civil Service Commission. Accordingly, the civil service qualification standards established for physician's assistants are the equivalency of accreditation for Federal employment.<sup>2</sup> Available positions in the Federal service for persons in this occupation are primarily in the Veterans Administration hospitals and clinics. The Public Health Service, the District of

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<sup>1</sup>"DHEW Grants Awarded to Train Physician's Assistants," Health Services Reports, LXXXVII (November, 1972), p. 821.

<sup>2</sup>M. J. Musser, "The Role for the Physician's Assistant in Federal Health Care Programs," Physician's Associate, I (October, 1971), p. 127.

Columbia government and the military will likewise have some positions.<sup>1</sup>

In contrast, non-federal employment has been somewhat of a concern; for the physician's associate, as trained, is capable of performing tasks legally permitted only to physicians by the respective States. Restrictive Medical Practice Acts are now being modified in order for physicians to maximize the skills of the physician's associate. To date, most State legislatures have entertained enabling legislation permitting the delegation of medical duties by physicians to their assistants, with passage in approximately half of the States.<sup>2</sup>

#### Proposed Utility of the Physician's Associate

It is relevant, at this point, to delineate more fully several benefits attributed to and expected of this new health profession, although various dissenting viewpoints remain.

Flexible, supportive assistance to the physician is a key contribution in efforts to increase the productivity of these physicians, as previously mentioned. The roles and functions of the physician's associate are not defined explicitly and, thus, fluctuate with the employing physician, who

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<sup>1</sup>Todd and Foy, op. cit., p. 1716.

<sup>2</sup>Winston J. Dean, "State Legislation for Physician's Assistants: A Review and Analysis," Health Services Reports, LXXXVIII (January, 1973), p. 3.

tends to delegate more functions as the assistant demonstrates competence. The physician-employer should be able to capitalize on the unstructured hours, geographic mobility and range of capabilities characterizing the well-trained physician's associate. For example, the time-savings, which should result, may be used to increase patient load, to engage in continuing professional education and to participate, perhaps, in healthful recreational activities. Hopefully, more comprehensive services will be enabled by the complementary skills of the physician's associate's functioning as a member of the health care team. It has been suggested that relieving the typically over-burdened physician of certain tasks via delegation to an assistant may even enhance the career satisfaction of the physician by freeing him for the more challenging aspects of medicine.<sup>1</sup>

With regard to the broader picture of medicine with its imbalance of specialization and subspecialization, it is recognized that manpower is needed in the areas of primary, preventive and emergency care.<sup>2</sup> Many believe the physician's associate will contribute substantially in fulfilling this need, but others disagree. Referring again to the problem

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<sup>1</sup> Bulletin of Duke University: Physician's Associate Program, XLIV (Durham, N.C.: Duke University, Duke Station, 1972), p. 4.

<sup>2</sup> Alfred M. Sadler, Blair L. Sadler, and Ann A. Bliss, The Physician's Assistant--Today and Tomorrow (New Haven: Yale University Press, 1972), p. 16.

of geographic and specialty distribution, some point out the dependent status of the physician's associate to the physician. In turn, location of the physician would, thus, determine the practice locale of the physician's associate, which, unfortunately, is unlikely to be in remote or disadvantaged areas.<sup>1</sup> Several training programs, however, are designed to minimize this occurrence. Another more serious issue is the attraction of these trained individuals to subspecialty medicine.<sup>2</sup> On an individual basis, many of the same factors that influence the physician in this direction are involved. Additionally, some training programs are preparing assistants for discrete specialties rather than for primary medicine. Another contested direction that employment may take, though offering advantages to troubled hospitals but another step removed from primary care, is with associates replacing house medical staff, particularly foreign, in some hospitals.<sup>3</sup>

Benefits to individuals are cited with the employment and advancement opportunities presented for those completing the physician's associate training programs. Thus, corpsmen who have acquired health care skills in the Armed Forces are able to continue using these skills in a career

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<sup>1</sup>Rousselot, Beard, and Beard, op. cit., p. 1489.

<sup>2</sup>Sadler, Sadler, and Bliss, op. cit., p. 28.

<sup>3</sup>June S. Rothberg, "Nurse and Physician's Assistant: Issues and Relationships," Nursing Outlook, XXI (March, 1973), p. 157.



after their discharge. Other health workers with training and experience should be able to achieve vertical career mobility into areas of direct patient care by completing physician's associate training.<sup>1</sup>

Cost of medical care is an increasing concern to citizens today and many purport that the introduction of the physician's associate into the delivery system will, in time, effectuate some cost containment for Americans as both taxpayers and consumers. The rationale for this assumption is that the training costs for these assistants are less than for a physician, since the assistant is prepared in approximately one-fourth the time required for the physician. Ultimately, the consumer could benefit if the savings from services performed by the physician's associate were passed on.<sup>2</sup> The possibility, of course, remains that the physician could simply enjoy increased profits.

#### Manpower for the New Occupation

Having established this new occupation raises the question--who will actually be trained to perform as a physician's associate? Several potential sources of manpower have been advanced as representing the type of individuals most appropriate for this new career. Directors of physician's

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<sup>1</sup>Bulletin of Duke University: Physician's Associate Program, loc. cit.

<sup>2</sup>Sadler, Sadler, and Bliss, op. cit., p. 15.

associate/assistant training programs indicate that applicants and students actually reflect a variety of backgrounds and experiences.

One source of likely candidates is the qualified but unsuccessful applicants to medical schools. Each year, thousands more apply for medical school than exist available positions. Also college graduates who have not applied to medical school due to various influential factors constitute additional candidates.<sup>1</sup>

Individuals already in the health field present another possible pool of manpower. Consideration of this category introduces the fact that retention of individuals in many of the other traditional health occupations is difficult for career mobility is minimal. It has been reported that health workers frequently find their occupation a "dead-end" job preventing them from moving to higher levels or to other health related areas without commencing the required training from the very beginning.<sup>2</sup> Thus, health personnel frustrated and stymied by their present position may find the career of the physician's associate quite enticing.

Major attention in the past few years has been given to the discharged military corpsmen, especially those with extensive medical training and experience. Some feel this military category to be the largest single source of individ-

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<sup>1</sup>Sadler, Sadler, and Bliss, op. cit., pp. 17-18.

<sup>2</sup>Butter, op. cit., p. 24.

uals possessing health training without interfering with present health categories.<sup>1</sup> Others contend that the military source is less important than registered nurses for the next decade.<sup>2</sup> Apparently, there are currently active nurses who are interested in this new role, considering it more challenging than their nursing role. Sadler cites this new career possibility as an important impetus to attract some of the 650,000 inactive nurses to resume working in the health field.<sup>3</sup>

Since sentiment related to the above mentioned category may have bearing on this study, it may be useful to offer some further insight to the reactions of registered nurses in proposing them as physician's associates.

Early in 1970, Dr. Ernest B. Howard, American Medical Association Executive Vice President, presenting the Lowell Lecture at Boston University Medical School, advocated that registered nurses with some additional training were well suited to become physician's assistants. He suggested that physicians' productivity could be positively affected by quickly training 100,000 nurses.<sup>4</sup>

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<sup>1</sup>Harry D. Karpeles and Joseph Hirsh, "The Military--An Untapped Resource," Hospitals, XLV (September, 1971), p. 61.

<sup>2</sup>Lave, Lave, and Morton, op. cit., pp. 44-45.

<sup>3</sup>Sadler, Sadler, and Bliss, loc. cit.

<sup>4</sup>"A.M.A. Unveils Surprise Plan to Convert R.N. into Medic," American Journal of Nursing, LXX (April, 1970), p. 691.

Reactions to this proposal were quickly forthcoming and rather mixed. The president of the American Nurses' Association responded sharply that one profession could not speak for another and that the proposed action would magnify the shortage of nurses.<sup>1</sup> Some nurses have disagreed with her retort, feeling that the opportunity to advance their skills and to perform certain medical tasks would be challenging.<sup>2</sup> Related opposition to the American Medical Association's proposal revolves around the position that nursing is an independent profession and should never assume a dependency position to the medical profession.

Others have continued to promote the nurse, however, as the most appropriate to perform delegated physician's functions, citing several reasons. Leedham notes their qualifications based on training, ethics and practice experience.<sup>3</sup> Langhorne refers to the positive contributions of nurses in intensive nursing care and feels that the nurse would require a much shorter training period at less expense than for preparing a non-nurse physician's associate.<sup>4</sup> Hiscoe describes

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<sup>1</sup>Ibid.

<sup>2</sup>Ludmila Davis, "Physician's Assistant--A Threat or a Challenge?" AORN Journal, XIII (March, 1971), p. 54.

<sup>3</sup>Charles L. Leedham, "The Nurse's Role in Meeting the Challenges of Medical Care," Occupational Health Nursing, XIX (November, 1971), p. 8.

<sup>4</sup>William H. Langhorne, "The Specialist and His Nurse--Unused Sources of Primary Medical Care," Journal of Florida Medical Association, LVIII (September, 1971), p. 39.

that nurses are licensed, have legal standing, and are accepted by both patients and physicians.<sup>1</sup>

Although a clear consensus of opinion does not exist, there are, obviously, a number of manpower sources available from which physician's associates may emerge. At the present time the applications for positions in these training programs are far exceeding the number which can be trained.

#### Training for this New Occupation

Those persons who do elect to attempt becoming a physician's associate have a number of training programs from which to choose. A brief overview of the general development of training programs and types appears to be in order.

An early recognition of the possibilities of the physician's associate was noted in 1961 when Dr. Charles L. Hudson, a member of the American Medical Association's Council on Medical Services, suggested the development of two new types of medical assistants--an advanced technician and an advanced medical assistant--as a partial solution to the manpower question.<sup>2</sup> It must be considered "partial," for suitably trained assistants may markedly alter the volume of physicians' services; but the problems of distribution and acces-

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<sup>1</sup>D. Bonta Hiscoe, "Nurses in a Crossfire," Journal of American Medical Association, CCXII (April, 1970), p. 298.

<sup>2</sup>Charles L. Hudson, "Physicians' Assistant: Expansion of Medical Professional Services with Nonprofessional Personnel," Journal of American Medical Association, CLXXVI (June, 1961), p. 840.

sibility are not addressed, due to the dependency status of the physician's associate.<sup>1</sup>

Since these early proposals of Dr. Hudson, a number of training programs have been developed. The various programs all subscribe to the premise that individuals can be trained to assume some of the time-consuming, routine, clinical duties not necessitating highly advanced medical training. Ultimate responsibility for all such delegated tasks, of course, is retained by the physician. This general philosophy is shared, but here the similarity among the institutions ceases, for entrance requirements, training length, curricula, and program titles differ.<sup>2</sup>

Presently, several programs are operational in various educational settings, such as medical schools; public and private hospitals; and junior and four-year colleges, which provide didactic and clinical experiences for a period of several months to two or three years depending upon the program. These programs, based on the philosophy of those involved in providing the training, are highly individualistic.<sup>3</sup>

The first program, established in 1965 by Dr. Eugene Stead of the Duke University Medical Center, is a two-year program primarily designed for experienced corpsmen from the

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<sup>1</sup>Sanazaro, op. cit., p. 98.

<sup>2</sup>Martha D. Ballenger, "The Doctor and His Changing Community," Modern Medicine, XXXIX (May, 1971), p. 66.

<sup>3</sup>Kadish and Long, op. cit., p. 1048.

Armed Forces. The program developed from Dr. Stead's recognition around 1962 that many physicians were maintaining a work load precluding educational and recreational activities and that nonphysicians at the Duke Medical Center had demonstrated effective performance of some tasks conventionally associated with the physician.<sup>1</sup> The nine-month didactic instruction in basic medical sciences and the fifteen-month clinical exposure, which were formalized into the training program, prepare individuals for both primary and specialty care. Many other similar programs are also operational or under development. The first four-year degree program in this field was developed by Alderson-Broaddus College in West Virginia in 1968. Several other Universities have now accepted this academic recognition and are also offering baccalaureate degrees.

Following the Duke program, another program model, termed "MEDEX,"<sup>2</sup> was conceived at the University of Washington at Seattle in 1969. This program originated under the leadership of Dr. Richard Smith, with five such programs now functional in this country. Training is provided for highly skilled, former independent duty military corpsmen with emphasis on primary care for rural areas. The students are exposed to three months of medical training and one year of service

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<sup>1</sup>Todd and Foy, op. cit., p. 1715.

<sup>2</sup>"MEDEX" is derived from French words meaning "physician extension."

under a physician-preceptor.<sup>1</sup>

The early objective of such training was generally to prepare assistants who would help provide more primary health care by affiliating with family physicians and internists. Over time, specialty groups have influenced the development of these programs, so that there are increasing opportunities for training physician's associate "specialists" as well as the "generalists." Specialty education is now available in surgery, pediatrics, radiology, community medicine, obstetrics-gynecology, psychiatry and pathology.<sup>2</sup> Examples of two-year training programs directed toward a specific specialty are the Orthopedic Assistant initiated in 1969 and the Urologic Physician's Assistant begun in 1970.<sup>3</sup>

Numerous variations of the physician's associate or assistant training programs are also quite visible today. One of these is the Child Health Associate Program developed in 1969 by Dr. Silver, which prepares individuals for assisting in pediatric medicine and requires five years for completion. Another program, developed by Dr. Silver at the University of Colorado at approximately the same time the Duke program was launched in 1965, is a four month Pediatric

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<sup>1</sup>Richard A. Smith, "MEDEX," Journal of American Medical Association, CCXI (March, 1970), pp. 1843-1845.

<sup>2</sup>"'M.D.'s Assistant' in Demand," American Medical News, XIV (October, 1971), pp. 7-8.

<sup>3</sup>Sadler, Sadler, and Bliss, op. cit., p. 21.



Nurse Practitioner Program for baccalaureate nurses.<sup>1</sup>

Several nurse-expansion programs, such as the one previously mentioned, offer additional training beyond the baccalaureate with some programs awarding a masters degree. The training is primarily in pediatrics or general family practice, which enables the graduate to function beyond traditional nursing.<sup>2</sup> Actually, one form of expanding the traditional nursing role has evolved with the placement of nursing personnel in hospital coronary care units and other units requiring exceptional skills.<sup>3</sup> These nurse clinician programs are considered to differ from the physician's associate programs. It is believed that for these nurses, even though formal training is involved, the move represents the attainment of increased status, expanded clinical responsibilities, higher salaries and career mobility in the health field. Those who have expanded their role functions in this manner do not fit within the framework of this study.

In summary, training programs to prepare assistants for physicians are many and varied in description, and it would not serve a useful purpose to attempt elaboration

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<sup>1</sup>Henry K. Silver and James A. Hecker, "The Pediatric Nurse Practitioner and the Child Health Associate: New Types of Health Professionals," Journal of Medical Education, XLV (March, 1970), pp. 171-176.

<sup>2</sup>Ballenger, op. cit., p. 67.

<sup>3</sup>David E. Reed and Klaus J. Roghmann, "Acceptability of Expanded Nurse Role to Nurses and Physicians," Medical Care, IX (July-August, 1971), p. 372.

on them. Several training programs were described in a very cursory fashion simply to give some appreciation of the basic models. The focus of this study was directed only toward the graduates of physician's assistant and physician's associate programs. This permitted a more definitive study by reducing variables and was, additionally, necessary due to the study population having occupational exposure only to these types.

These individuals completing the various above mentioned physician's assistant/associate programs, which evolved in response to perceived needs and the success of the military, are finding employment in a diversity of settings offering both primary and specialty care. A 1972 American Medical Association Survey of employed graduate physician's assistants reveals that approximately half are providing services primarily in institutions.<sup>1</sup> Importantly, this proportion may rise considerably pending the development of their usage by hospitals to replace house medical staff, particularly the foreign-trained. Consequently, within the organizational framework the physician's associate's range of professional contacts has enlarged to the extent that meaningful interaction with other hospital employees is mandated. However, the present ambiguous role of the physician's associate when introduced into the traditional

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<sup>1</sup> A.M.A. Department of Health Manpower, 1972 Survey of Operational "Physician's Assistant" Programs: Numbers Graduated and Employed, December, 1972, p. 1.

hospital hierarchy may promote complications, particularly with the registered nurses.

## CHAPTER II

### REVIEW OF THE LITERATURE

This new physician's associate's role, which is not firmly defined purposefully so as to respond to the needs of the physician, evokes much discussion. In the past few years many observations, opinions and informal surveys have been stimulated by this influential development. One significant position was assumed in 1970 by the National Center for Health Services Research and Development, which indicated that information should be generated through a large scale demonstration over a five year period of time as the initial commitment to the physician's associate concept.<sup>1</sup> However, it is recognized that training programs have been instituted fairly rapidly, prior to sound deliberation on substantive data.

The fairly limited research efforts that have been completed include task analyses, time and motion studies, cost-benefit analyses, and studies of the relative acceptance of the physician's associate's role. The latter studies constitute the focal point for literature review--acceptance being a primary issue in this study. Of these acceptability

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<sup>1</sup>Sanazaro, op. cit., p. 99.

studies, the majority have been logically concerned with physician and patient's acceptance. Obviously, soliciting the reactions of physicians is certainly a legitimate effort to determine their needs and the employment possibilities for physician's associates. It is also highly essential to ascertain the views of patients toward the physician's associate and his role in their health care. Given the complexities of the health care field and the necessary interdependencies of personnel in providing health services, proper and early attention, likewise, must be given to team compatibility. Studies related to this facet of acceptability by co-workers will be discussed in the latter part of this chapter.

#### Acceptance by Physicians

Physicians' acceptance has been explored in several states by means of surveys administered to the respective State Medical Associations. Generally, these surveys attempted to determine the possible market for physician's associates and, in some surveys, the types of tasks that were deemed appropriate to delegate to such personnel. These surveys, conducted in Wisconsin, Maine, Missouri, Delaware, Kentucky and other states, show support of the concept by a majority of the physicians and a general willingness to employ the physician's associate. Two of these surveys have been selected for review in slightly more detail.

One of the earliest surveys of this nature was in 1969 involving members of the Wisconsin State Medical Society. Sixty-one percent of the respondents pointed to a need for doctor's assistants and forty-two percent replied affirmatively to utilizing an assistant, but the response rate was considered too low to constitute a random sample. Physician respondents apparently viewed, almost exclusively, assistants as technicians and the majority felt the following tasks inappropriate for the physician's associate:

1. Performing physical examinations.
2. Providing emergency room procedures.
3. Administering anesthetics.
4. Providing postoperative care.
5. Performing deliveries.
6. Providing prenatal and well-baby care.<sup>1</sup>

Another survey, conducted in Missouri, revealed that more than eight hundred physicians would hire an assistant. Those physicians in group practices appeared more interested in this employment than those in solo practices. Demand for assistants was also found to vary by types. General practice assistants were most in demand followed by surgical assistants and then by pediatric assistants.<sup>2</sup>

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<sup>1</sup>Robert D. Coye and Marc J. Hansen, "The 'Doctor's Assistant': A Survey of Physicians' Expectations," Journal of American Medical Association, CCIX (July, 1969), pp. 529-531.

<sup>2</sup>William Stoneman, "Missouri Doctors and the Physician Assistant," Missouri Medicine, LXVIII (September, 1971), p. 674.

Acceptance by Patients

Patients' acceptance, as reported in the literature, is partially based on the subjective experiences of physicians' employing physician's associates, but some research studies in this area have been completed. One of these studies, conducted in 1969, consisted of interviewing seventy-two patients to elicit their relative acceptance of Duke physician's associates. Findings suggested that acceptance had a curvilinear relationship to income with highest acceptance by middle income interviewees and had a positive linear relationship to the educational level of the patient.<sup>1</sup>

A survey in 1970 was directed to 253 Southern Minnesota and Northern Iowa households to determine their attitudes and opinions about the possibility of physician's associates working in their community. Generally, there was support for the concept but incomplete confidence in the skills of such personnel. Consequently, endorsement by the local family physician was found to be a determining factor in patients' acceptance.<sup>2</sup>

Adamson has speculated, but offered no evidence, that consumer acceptance will be greater in rural areas than in

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<sup>1</sup>Louis R. Pondy, et al., "A Study of Patient Acceptance of the Physician's Assistant" (unpublished, Duke University, August, 1969), p. 11.

<sup>2</sup>Theodor J. Litman, "Public Perceptions of the Physician's Assistant--A Survey of the Attitudes and Opinions of Rural Iowa and Minnesota Residents," American Journal of Public Health, LXII (March, 1972), p. 346.

urban ghettos. She believes that urban ghetto-dwellers will perceive this non-physician as dual standard discrimination, while rural populace will accept the physician's associate because of the scarcity of health workers.<sup>1</sup>

#### Role Acceptability by the Physician's Associate

Meaningful relationships with others is often influenced by one's perception of himself and his contributions. In line with this, the physician's associate's self-acceptance of his role has been questioned, due to his dependency on the physician. In a study, limited to eight graduates of Duke University's Physician's Assistant Program, it was found that those assistants who were satisfied felt their role and functions were unique and that they were recognized for certain areas of competency.<sup>2</sup>

Another survey of eleven office and hospital based physician's associates indicated that they regarded their career as motivating and satisfying. The majority of these associates responded that this satisfaction was primarily related to "personal satisfaction with the work itself."<sup>3</sup>

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<sup>1</sup>Elaine T. Adamson, "Critical Issues in the Use of Physician Associates and Assistants," American Journal of Public Health, LXI (September, 1971), p. 1777.

<sup>2</sup>Linda Marshall Breytspraak and Louis R. Pondy, "Sociological Evaluation of the Physician's Assistant's Role Relations," Group Practice, XVIII (March, 1969), p. 40.

<sup>3</sup>Robert D. Howard, John A. Braun, and Les A. Hoffman, "Physicians' Assistants: Are They Accepted? Are They Happy?" Resident and Staff Physician, XVIII (August, 1972), p. 80.



### Acceptance by Other Health Professionals

A range of opinions has been proffered regarding the acceptance of this new worker by other health professionals. Foremost among these professionals are the registered nurses who have not had the opportunity to voice their opinions concerning the introduction of others, such as various technicians, into the hospital setting.<sup>1</sup> A repetition of this action combined with a new threat seems to have occurred with the physician's associate, who for some nurses may represent a true competitor.<sup>2</sup> Estes cites that nurses and technicians at Duke University Medical Center were accepting of the physician's associate after finding the associates facilitated their own work and after the functions of the physician's associate were understood.<sup>3</sup> Others, such as Lewis, are not convinced of such acceptance, believing there is definite concern among nursing groups. He further proposes that personnel problems may arise in organizations utilizing physician's associates and seeks specific examination of the acceptance of the physician's associate in the formal institution.<sup>4</sup> Pointing to the lack of clarity of role and func-

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<sup>1</sup>Myra E. Levine, "Implications for Nursing in the Use of Physician's Assistants," Hospital Topics, XLIX (May, 1971), p. 62.

<sup>2</sup>Rockwell Schuly and Alton C. Johnson, "Conflict in Hospitals," Hospital Administration, XVI (Summer, 1971), p. 43.

<sup>3</sup>Estes, op. cit., p. 98.

<sup>4</sup>Charles L. Lewis, "Acceptance of Physician's Assistants," Hospitals, XLV (June, 1971), pp. 63-64.

tions of the physician's associate, Lambertson suggests that productive relationships among the health care team are impaired.<sup>1</sup> Concurring with this, Bates, in discussing physician-nurse relations, states that additional interprofessional problems will result with the entry of the physician's associate into organizational arrangements.<sup>2</sup> Rothberg, in a recent article, more pointedly describes the physician's assistant as symptomatic of medicine and nursing's inability to define their respective roles and strongly questions the eventual acceptance of the physician's assistant.<sup>3</sup>

Much of the data which are available on acceptance by nurses is of marginal value, due to its collection without controlled research design. A 1970 survey informally obtained responses from registered nurses at Duke University, University of Colorado and those working with the MEDEX in Washington State. The findings indicated some uncertainty and friction in the surgical areas but general acceptance of the physician's assistant. Need for this type of manpower was reported to have mitigated the earlier resentment experienced by some of the nurses.<sup>4</sup>

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<sup>1</sup>Eleanor C. Lambertson, "Not Quite M.D., More Than P.A.," Hospitals, XLV (December, 1971), p. 74.

<sup>2</sup>Barbara Bates, "Doctor and Nurse: Changing Roles and Relationships," AORN Journal, XV (January, 1972), p. 59.

<sup>3</sup>Rothberg, op. cit., p. 158.

<sup>4</sup>"The Physician's Assistants--How Nurses View Their P.A.'s," RN, XXXIII (October, 1970), pp. 50-51.

In an attempt to assess the extent to which nursing duties may be modified by the physician's associate, Andreoli examined twelve family practice settings. She reported no significant change in the activities of office nurses where a physician's associate was employed.<sup>1</sup>

The research most pertinent to this study is a case study completed in a small midwestern community hospital. Professional hospital employees were interviewed to gain their reaction to the role of the one graduate physician's associate employed in this hospital. This role was found to be defined by the interviewees in sundry ways, which relates to the degree of acceptability accorded it. The majority of nurses, having rated the associate's position as being equal to their own, expressed concern with his performing duties which overlapped their own. Also expressed was the view that many of the technical procedures assigned to him should be curtailed, for several believed that physicians were permitting this health worker to function beyond his qualifications. A need for a physician to be responsible for the assistant was identified to minimize confusion over tasks and over position in the hospital social structure. The researchers believed resistance to the concept declined over time but found the general attitude initially to be ambivalent

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<sup>1</sup>Kathleen G. Andreoli, "R.N.s, P.A.s and You," Medical Opinion, I (November, 1972), p. 31.

and somewhat negative.<sup>1</sup>

Obviously, there is a dearth of information concerning the general acceptability of the physician's associate in an institutional setting. This presents a fertile field for investigation as professionally administrators seek to anticipate and to avoid potential organizational and personnel problems which may arise with the wide-scale introduction of the physician's associate. This exploratory study will address itself to expanding existing data and to examining views of institutional nurses toward the role of the physician's associate.

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<sup>1</sup>Rodney M. Coe and Leonard Fichtenbaum, "Utilization of Physician Assistants: Some Implications for Medical Practice," Medical Care, X (November-December, 1972), pp. 497-500.

## CHAPTER III

### DESIGN OF THE STUDY

This study was designed to examine the acceptability of the role of the physician's associate to registered nurses in an institutional setting. Several areas relative to acceptability were explored, including:

1. Nurses' expectations of the physician's associate.
2. The types of functions performed by the physician's associate.
3. The relationship of several professional and personal characteristics of nurses.
4. The effect of occupational association between registered nurses and physician's associates.

#### Hypotheses

Several null hypotheses were formulated and tested in this research endeavor, as follows:

1. Registered nurses who have occupational association with physician's associates have the same level of acceptance regarding the role of the physician's associates as those who have not had such exposure.
2. Acceptance of the role of the physician's associate by the registered nurse does not relate to her total years of experience.
3. Acceptance of the role of the physician's associate by the registered nurse has no relationship with her age.

4. Acceptance of the role of the physician's associate by the registered nurse does not relate to her salary grade.
5. Acceptance of the role of the physician's associate by the registered nurse is unrelated to her ranking in the nursing service.
6. Acceptance of the role of the physician's associate by the registered nurse has no relationship to her major clinical service affiliation.
7. Acceptance of the role of the physician's associate by the registered nurse is unrelated to her membership in professional associations.
8. Acceptance of the role of the physician's associate by the registered nurse does not relate to her decade of graduation.
9. Acceptance of the role of the physician's associate by the registered nurse does not relate to her perception of his relative positional status.
10. Agreement concerning the functions of the physician's associate does not differ between those registered nurses having occupational association with physician's associates and those who do not have such association.

#### Definitions

The following terms and definitions are delineated to clarify their usage in this study:

Physician's Associate--A skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is then responsible for the performance of that assistant, as defined by the American Medical Association.

Registered Nurse--A licensed professional person who has successfully completed both the graduation requirements from a school of nursing approved by a State Board of Nursing

and also the State Board written examination. This study has limited its consideration to those registered nurses in selected institutions who are primarily involved in providing patient care.

Occupational Association--The contact between a physician's associate and a registered nurse in the performance of respective duties in a hospital setting.

Total Years of Experience--The total number of years the nurse has been employed in the capacity of a registered nurse.

Acceptance--The degree of acknowledgment of the physician's associate and the willingness to identify his role within an institutional setting. This is inferred from the response of "agree" to the question relating to the need for physician's associates in the hospital setting.

Relative Positional Status--Defined in terms of "superior," "subordinate," or "peer" in accordance with the registered nurse's view of her role significance.

Membership in Professional Associations--These associations include only the American Nurses' Association and the National League for Nursing.

Major Clinical Services--These are defined to be Medicine and Surgery.

### The Settings

For this study, random selection of institutional settings was not practical since the staff of many hospitals

does not include physician's associates and since occupational exposure was a research variable. Although half of the employed physician's associates are in institutions, there is an uneven distribution of associates in hospitals nationally, with few areas where several are aggregated. In the State of Oklahoma in the Spring of 1973 there was, for example, a total of fourteen graduate physician's associates in an employed capacity. Thus, several criteria were established prior to determining institutional settings in which this research could be conducted.

The criteria were designed to provide a rationale for selection of two hospitals and to reduce several possible biasing factors. These criteria included:

1. One hospital having at least three full-time graduate physician's associates employed over eighteen months.
2. One control hospital having never employed or trained physician's associates.
3. Hospitals being within reasonable range of the University of Oklahoma to facilitate interviewing procedures.
4. Both hospitals being geographically similar.
5. Both hospitals being comparable in size.
6. Both hospitals having comparable service characteristics.
7. Both hospitals having an accessible total population of registered nurses.

Two Veterans Administration hospitals located in the South Central States were selected as best fulfilling the above criteria. In reference to criteria number one, a



Veterans Administration Hospital was first chosen based on its current employment of six graduate physician's associates. This number of associates would minimize the possible biasing of results by personalities, which can occur when only one or two individuals are involved. Graduate physician's associates had been introduced into this hospital in September, 1970. Hence, a time period that would be considered adequate in allowing for usual initial reactions and adjustments to change was obtainable.

Recognizing that Federally-employed registered nurses were, perhaps, non-characteristic of general community hospital nurses and in fulfilling criteria number two, this author then selected a second Veterans Administration Hospital to achieve a control population. This second hospital was chosen based on its lack of employed physician's associates and on the remaining criteria, such as its comparable characteristics and its relatively close proximity to the first hospital.

In regard to the comparable characteristics, each hospital was found to operate approximately 230 beds at a similar rate of occupancy and to offer primarily medical and surgical services with neither hospital having psychiatric beds. Although located in two separate states, the hospitals are within a 150 mile radius. This close regional location was considered advantageous to the study, for the hospital nurses were more likely to exhibit common social and cultural features.

### Research Methodology

The paucity of data in this particular area of interest dictated an exploratory study to delimit factors for future research. An initial decision was made to utilize the interviewing technique for obtaining the views of institutional nurses toward the role of the physician's associate in the hospital setting, as opposed to the possible alternative of a questionnaire.

Advantages and disadvantages are inherent with each; but due to the attitudinal character of the study involving possibly some sensitive items, the interview method appeared more appropriate. One particular benefit, considered relevant to this research, was that the interview method would aid in securing a greater number of responses from the study population than would the questionnaire method, for the personal approach often influences respondent motivation. This approach, also, provides the opportunity to limit the possibility of question misinterpretation and to stimulate frankness.<sup>1</sup>

After reviewing types of instruments suitable for interviewing, the author gave preference to the standardized, structured interview schedule. This type is particularly merited due to its traits of increasing the reliability of the results and of ensuring consistent stimuli for all respond-

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<sup>1</sup>Bernard S. Phillips, Social Research Strategy and Tactics (New York: The Macmillan Company, 1970), pp. 120-121.

ents.<sup>1</sup>

### Instrumentation

An interview instrument for collecting the requisite data was prepared based on discussions with registered nurses, physician's associates, and several social researchers and on an extensive literature review revealing general content areas for exploration. A copy of this interview schedule, which consists of direct interview questions and attitudinal questions to consecutively comprise the two sections, appears in Appendixes A and B.

In reference to section one, eighteen questions were designed to gain general reactions to the concept, to ascertain perceptions of the role of the physician's associate and to determine requirements felt appropriate for the physician's associate. Both open and fixed-alternative questions were developed and utilized to obtain this data. The open questions preceded some of the fixed-alternative types for the purposes of initiating an issue for thought, possibly revealing a misunderstood question, and motivating the interviewee to express her own feelings. Fixed-alternative questions were incorporated to allow for the comparing of responses along definite dimensions.<sup>2</sup>

The second section of the instrument gained attitu-

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<sup>1</sup>Phillips, op. cit., p. 110.

<sup>2</sup>Phillips, op. cit., pp. 117-118.

dinal reactions to several statements, elicited some basic demographic data about the respondent, and lastly, provided an opportunity for additional comments.

The first set of twelve statements in this section was postulated about the role of the physician's associate and was formulated by using the several informal criteria for attitude statements, as noted and summarized by Allen L. Edwards.<sup>1</sup> These positive and negative statements were randomized for placement order in the interview schedule.

The design of responses for these statements was patterned similar to the Guttman-Suchman technique affording both a measure concerning the content and a measure of intensity of feeling. Several content variables, such as personal acceptance, effect on professional relationships, need for this new role, effect on the delivery system, and patient acceptance were of interest as opposed to a singular content item. Accordingly, it was decided to direct attention to responses for each statement item rather than to develop a scale which was uni-dimensional.<sup>2</sup>

The second set of questions in this section (the reader may refer to numbers 31-44, excluding 36 and 43 in Appendix B) was used to determine the extent of agreement

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<sup>1</sup>Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts, Inc., 1957), pp. 13-14.

<sup>2</sup>Louis Guttman and Edward A. Suchman, "Intensity and a Zero Point for Attitude Analysis," American Sociological Review, XVII (February, 1947), pp. 57-67.

with functions being performed by the physician's associate. Twelve functions were randomly selected from a list of functions delineated in a Veterans Administration circular, which was addressed to the utilization of physician's associates in Veterans Administration hospitals.<sup>1</sup> This was accomplished by assigning each function listed in the circular a number from one to thirty-four and by using a table of random numbers to select twelve functions. These were then placed in the form of assertive statements reflecting both positive and negative directions and randomized for placement in the interview schedule.

Possible responses ranging from "strongly agree" to "strongly disagree" along a five stage continuum were assigned values of one to five based on the Likert Scale Approach. Thus, a "strongly agree" response to a positive statement received a value of five, while a "strongly agree" response to a negative statement received a value of one with other responses weighted accordingly. A summated score is yielded by this method, which was used in comparison between the two hospitals.<sup>2</sup>

#### Pretesting

Two pretests were conducted in order to strengthen

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<sup>1</sup>Veterans Administration, November, 1972, "Physician's Assistant Employees--Utilization and Continuing Education," Circular No. 10-72-252. pp. A-2--A-5.

<sup>2</sup>Edwards, op. cit., p. 151.

the instrument, to obtain an approximation of required interviewing time, and to benefit by additional experience in the interviewing technique.

The first pretest involved five registered nurses associated with the University of Oklahoma Health Sciences Center. Each of these nurses was administered both sections of the interview instrument, which enabled the author to identify difficulties and to test clarity of questions. Upon completion of each interview, considerable time was spent in discussing the instrument with each respondent to identify any ambiguities and to ascertain her general reactions. This initial pretest precipitated the deletion of a few questions, a modification of some wording and a minor re-sequencing of sets of questions.

A second pretest was conducted with the revised instrument in a Veterans Administration Hospital, not included in this study. This pretest served to identify the need for additional refinement and, importantly, to determine if the instrument was appropriately designed for a Federal hospital. Tabulation and analysis of the data collected in these thirteen interviews influenced a few additional minor revisions.

#### The Study Populations

The exploratory nature of this study encouraged the author to interview the total population of registered nurses at the two pre-selected Veterans Administration Hospitals.

Using this procedure has the distinct advantage of permitting absolute value comparisons of the observed proportions between the two institutions without requiring inferential statistics--used where an error factor is associated with sampling.<sup>1</sup>

Since the working experiences of nurses tend to influence their reactions, the study population was limited to those registered nurses involved directly in patient care; therefore, registered nurses in the nursing service administration were not included. Additionally, the one male nurse employed in the hospital where physician's associates were working was excluded to eliminate the sex variable.

Forty-seven of the fifty-five registered nurses were interviewed in the hospital where physician's associates were not employed. There were no interview refusals with this group, however, eight nurses were not interviewed owing to one of the following conditions:

1. Not scheduled for work during interview period;
2. Receiving annual leave; or
3. Attending workshops.

The study group, 85 percent of the total defined population, was believed to accurately portray this population.

In the hospital employing physician's associates, sixty-five of the seventy-eight registered nurses providing patient care were interviewed, which was 83 percent of the

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<sup>1</sup>Quinn McNemar, Psychological Statistics (New York: John Wiley and Sons, Inc., 1969), pp. 2-4.

total population as defined. Again this percentage was felt to accurately portray the total population.

As with the first hospital none of the nurses refused, but here one interview was cancelled. This particular nurse, who was scheduled for work only once during the interviewing period, had two critically ill patients admitted to her ward which, of course, precluded the scheduled interview and left no opportunity for a rescheduling. The other twelve nurses were not interviewed owing to the following reasons:

1. Not scheduled for work during interviewing period;
2. Receiving annual leave;
3. Sick leave;
4. Sick leave pending disability retirement; or
5. Attending training course.

#### Collection of Data

Permission to interview in these hospital settings was secured from the respective hospital Directors after an initial introduction via letter from a local Veterans Administration Hospital administrator. Subsequently, this investigator arranged meetings with the hospital Directors to explain the nature of the study and the associated requirements and to determine suitable interviewing dates. Cooperation was excellent with each Director introducing the author to the Chief of Nursing Service to establish the necessary arrangements.



In accordance with the interviewing plan found in Appendix C, this author administered the interviews in each hospital over approximately a period of three days duration. Maintaining this timetable helped to minimize possible contamination of the results due to communication among potential respondents. One hospital was surveyed May 9-11, 1973, and the second hospital was surveyed May 14-17, 1973.

The standard three work shifts are utilized in these hospitals; thus, interviewing was conducted on all three shifts using the flexible scheduling provided by the Chief of Nursing Service in each hospital. Rigid scheduling, of course, was not possible due to shifting patient care demands but the flexible scheduling did ensure efficient coverage of all nurses. The average time for an interview was approximately 22 minutes with a range of 15 to 35 minutes. During the day shifts these interviews were conducted in small rooms made available by the hospital. The author went to the various nursing units for the afternoon and evening shifts, since these registered nurses were unable to leave the units during these shifts. Interviewing of these nurses was generally conducted in the nurses' station or in another room affording a measure of privacy.

## CHAPTER IV

### FINDINGS

All registered nurses providing patient care in two Veterans Administration Hospitals were interviewed concerning their views relating to the role of the physician's associate. These two study populations offered comparable professional and personal characteristics but differed in regard to occupational association with physician's associates. One nursing population had no working exposure with graduate physician's associates either in the past or at the time of the interview. The other group was working in a hospital in which graduate physician's associates had been employed since 1970.

These two hospitals are hereafter referred to as "Hospital (P.A.)" for the hospital in which physician's associates were employed and "Hospital (No P.A.)" for the second hospital in which physician's associates were not employed. These designations are intended to simply and clearly distinguish between the two hospitals and their nurses.

At this point, the author would like to reiterate the fact that the study populations in these hospitals included only female nurses providing patient care. Nurses in the Nursing Service Administration were excluded in addition to

the one male nurse employed in Hospital (P.A.). These exclusions were warranted owing to the small number of personnel in the categories of administrative nurses and male nurses, who would have added two non-testable variables, thus, rendering less uniformity in the study populations for comparative purposes.

A study design was created to examine the effect that occupational contact may have on the views of the nurses. It has been contended in the literature that after working with physician's associates for a period of time nurses will understand and be more appreciative of the associate's contributions to health care delivery. This study afforded a comparison of these two groups of nurses, which was demonstrative of their acceptance of the role of the physician's associate in the institutional setting and also of their variations in views toward relevant issues.

#### Comparison of Nurse Populations

In looking at some of the basic similitudes of these two nursing groups, the type of education was first considered. Three educational avenues that are available to persons entering the nursing profession include obtaining: (1) a hospital diploma, (2) an associate degree, or (3) a baccalaureate degree. One's viewpoint may be partially shaped by the particular mode of education; therefore, a comparison of the educational levels of these study populations is presented in Table 1.

TABLE 1  
COMPARISON OF REGISTERED NURSES IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES  
BY EDUCATIONAL LEVEL, 1973.

Educational Level	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Associate Degree	13	20.0	7	14.9
Hospital Diploma	46	70.8	32	68.1
Baccalaureate Degree	6	9.2	8	17.0
Masters Degree	0	0.0	0	0.0
Total	65	100.0	47	100.0

Noticeably, both hospitals have a high percentage of hospital diploma nurses. In comparing the two institutions, Hospital (No P.A.) had a slightly higher percentage of baccalaureate degree nurses but a lower percentage of associate degree nurses. No masters degrees were recorded for either hospital grouping but some nurses in the Nursing Service Administration, who were not interviewed, had masters degrees.

Related to the type of education received was the era of training as an influencing factor. A comparison of the decade of graduation for the nurses is shown in Table 2. Examining these percentages revealed the fact that a greater number of nurses in Hospital (P.A.) received their training

TABLE 2  
COMPARISON OF REGISTERED NURSES IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES  
BY DECADE OF GRADUATION, 1973

Decade of Graduation	Number of Nurses	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>		
		Per- centage	Cumu- lative Percentage	Number of Nurses	Per- centage	Cumu- lative Percentage
1926-1935	4	6.2	6.2	1	2.1	2.1
1936-1945	17	26.1	32.6	9	19.2	21.2
1946-1955	20	30.8	63.1	13	27.7	48.9
1956-1965	10	15.4	78.5	13	27.7	76.6
1966-1975	14	21.5	100.0	11	23.4	100.0
Total	65	100.0		47	100.0	

prior to 1956. A more balanced picture was observed in Hospital (No P.A.), for approximately one-half of these nurses graduated prior to 1956 and one-half after 1956.

In determining views, total years of experience as a registered nurse is, also, significant. The distribution of nurses by years of employment may be viewed in Table 3, which indicated that approximately one-third of each nursing population was employed as a registered nurse 10 years or less. One major difference was noted with Hospital (No P.A.) having almost 96 percent of the nurses having worked 30 years or less and Hospital (P.A.) reflecting almost 14 percent of the nurses having worked over 30 years. By examining the decade of graduation and years of experience, one could easily infer that the nursing population in Hospital (P.A.) had a larger percentage of older nurses. Data on age obtained from the nurses supported this speculation and are presented in Table 4.

In Hospital (P.A.) 20 percent of the nursing population was 55 years of age or over. In comparison only 5 percent of Hospital (No P.A.) nurses fell into this age category. The mean age of nurses in Hospital (P.A.) was calculated to be 44.43 with the median age as 47. The mean age of those nurses in Hospital (No P.A.) was 40.29 with a closer median age of 39. Thus, there was found to be a larger percentage of nurses in the 55-64 age category associated with Hospital (P.A.).

Another characteristic of nurses considered important

TABLE 3

COMPARISON OF REGISTERED NURSES IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES  
BY YEARS OF EMPLOYMENT, 1973

Years of Employment	Number of Nurses	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>		
		Per- centage	Cumu- lative Percentage	Number of Nurses	Per- centage	Cumu- lative Percentage
0-10	21	32.3	32.3	16	34.1	34.1
11-20	19	29.2	61.5	13	27.6	61.7
21-30	16	24.6	86.1	16	34.0	95.7
31-40	9	13.9	100.0	2	4.3	100.0
<sup>c</sup> Total	65	100.0		47	100.0	

TABLE 4

COMPARISON OF REGISTERED NURSES IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES  
BY AGE, 1973

Age	<u>Hospital (P.A.)</u>			<u>Hospital (No P.A.)</u>		
	Number of Nurses	Per- centage	Cumu- lative Percentage	Number of Nurses	Per- centage	Cumu- lative Percentage
0-24	3	4.6	4.6	4	8.5	8.5
25-34	13	20.0	24.6	13	27.6	36.1
35-44	12	18.4	43.0	8	17.0	53.1
45-54	24	37.0	80.0	20	42.6	95.7
55-64	13	20.0	100.0	2	4.3	100.0
Total	65	100.0		47	100.0	



to this study was their membership in professional organizations. Such associations often play an influential role in the lives of members through meetings, educational sessions and literature. For nurses, these associations are usually the American Nurses' Association and the National League for Nursing. Accordingly, each nurse was asked if she had current membership in one or both of these organizations. The responses, as illustrated in Table 5, indicated that a large percentage of nurses had membership in neither organization. However, comparable percentages of nurses in each hospital did have membership with the American Nurses' Association, which has been particularly outspoken about the physician's associate concept.

In reviewing several selected characteristics of the nursing populations studied, the two were found to be quite similar in terms of education, years of experience and professional association membership. One major difference between the two hospitals was that Hospital (P.A.) had a larger percentage of nurses over 54 years of age which accounted for the larger percentage of nurses in that hospital having 31-40 years of experience as registered nurses.

#### Cognizance of the Physician's Associate Concept

In response to queries about the physician's associate, all nurses in both institutions indicated that they were familiar with this recent concept but to varying levels

of knowledge. This awareness of the physician's associate as a new health worker ranged from individuals recognizing the innovation on television's medical-type programs to those individuals who had corresponded with physician's associate training programs.

TABLE 5  
COMPARISON OF REGISTERED NURSES IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES  
BY MEMBERSHIP IN PROFESSIONAL  
ASSOCIATIONS, 1973

Professional Association	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per-centage	Number of Nurses	Per-centage
A.N.A.	19	29.2	13	27.7
N.L.N.	0	0.0	3	6.4
Neither	46	70.8	30	63.8
Both	0	0.0	1	2.1
Total	65	100.0	47	100.0

The sources providing initial information about the physician's associate concept to the nurses in Hospital (P.A.) are ranked from highest to lowest percentages as follows: personal experience, informal conversation with other nurses, professional literature and the news media. Apparently many were first introduced to the concept with the

inception, in 1970, of employing physician's associates in that institution. These nurses also indicated 1970 most often in conjunction with the first source of information.

Nurses with Hospital (No P.A.) related their first sources of information in ranked order to be the following: professional literature, informal conversation with other nurses, the news media and formal meetings of nurses. The largest percentage of these nurses became aware of the physician's associate first in 1971, with the second largest percentage in 1970. These years were expected, for national recognition of this concept appeared to peak in 1970-1971 with professional people beginning to examine the issue more closely and to offer comments. Actually, as pointed out in Chapter I, the physician's associate possibility was first broached in this country in 1961 with the first training program initiated in 1965.

#### Suggestions Related to Training

Preliminary to questions on length of training and manpower sources, an attempt was made to determine if sex of the physician's associate would be considered important. Several have cited in the literature that just as nursing has been a predominantly female field, the physician's associate profession appeared to be a male domain. All respondents in Hospital (No P.A.) and a major portion of those in Hospital (P.A.) stated that for the physician's associate

to be male or female was unimportant. However, 15 percent of the nurses at Hospital (P.A.) did indicate that it was preferable for the physician's associate to be male. The usual explanation that was offered with this response was that the male physician's associate would be better accepted by the primarily male patients at Veterans Administration Hospitals. Probably this result was related to the fact that the physician's associate performs complete physical examinations of the patients.

As noted in Chapter I, training programs for physician's associates differ in their length of training; and the students and graduates of these programs reflect a variety of educational and experiential backgrounds. The nurse respondents were requested to specify the minimum level of education they considered necessary for the physician's associate to function in this new role; the range of viewpoints is illustrated in Table 6. The majority of nurses in both hospitals believed a baccalaureate degree to be necessary. Particularly for Hospital (P.A.), this response may have been influenced by the fact that the student physician's associates on clinical rotation in this hospital were in a training program, which awarded a baccalaureate degree upon completion. An interesting comparison was that nearly one-fourth of the nurses at Hospital (No P.A.) specified an associate degree as appropriate while a similar percentage at Hospital (P.A.) suggested a masters degree. The emphasis in Hospital (P.A.)

for baccalaureate or masters degrees, perhaps, tends to indicate that the nurses viewed more years of education as essential because of the functions they saw the physician's associate performing. The Hospital (No P.A.) nurses may have viewed the functions of the physician's associate as being less sophisticated and demanding of lengthy training.

TABLE 6

LEVEL OF EDUCATION FOR PHYSICIAN'S ASSOCIATES  
EXPECTED BY NURSE RESPONDENTS IN HOSPITALS  
WITH AND WITHOUT PHYSICIAN'S ASSOCIATES,  
1973

Level of Education	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
P.A. Certificate	3	4.6	6	12.8
Associate Degree	8	12.3	11	23.4
Baccalaureate Degree	39	60.0	25	53.2
Masters Degree	15	23.1	5	10.6
Total	65	100.0	47	100.0

One of the controversies that has emerged over training concerns the requisite background of those becoming physician's associates. An interview question was developed to determine if the respondents viewed registered nurses as being

the most suitable for this training and to determine other categories given primary preference. Thus, the respondents were asked to rank six categories of potential manpower as to their suitability for training to become physician's associates. Table 7 presents the resulting distribution of initial selections given to each possible category.

Examination of the data revealed that both nursing populations responded similarly to this question. Obviously, the registered nurse category was favored by nearly one-half of the respondents as being the most suited for physician's associate training. Nurses in Hospital (No P.A.) evidently gave attention to the background of ex-military corpsmen, for they did not distinguish as much between the corpsmen and medical school applicants as did Hospital (P.A.). The experience of hospital technicians, however, was not rated highly by these nurses, for those without health experience were ranked first more often. Licensed Practical Nurses were, of course, not ranked first by any respondent for this would have placed their skills as superior to those of the registered nurse.

Another question aimed toward the nurse as a physician's associate asked the nurse if she would personally consider a career change to become a physician's associate. Hospital (P.A.) nurses tended to answer negatively to such a career change, as shown in Table 8. The percentage of "no" answers can partially be attributed to the older age dis-

TABLE 7  
CATEGORIES INDICATED MOST SUITABLE FOR  
PHYSICIAN'S ASSOCIATE'S TRAINING  
BY NURSE RESPONDENTS, 1973

Categories of Potential Physician's Associates	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>		<u>Total</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Registered Nurses	31	47.7	24	51.1	55	49.1
Applicants to Med. School	19	29.3	10	21.3	29	25.9
Ex-military Corpsmen	6	9.2	8	17.0	14	12.5
Those Lacking Health Experience	6	9.2	3	6.4	9	8.0
Hospital Technicians	3	4.6	2	4.2	5	4.5
Licensed Practical Nurses	0	0.0	0	0.0	0	0.0
Total	65	100.0	47	100.0	112	100.0

tribution in this hospital, for several remarked to the investigator that their age would prevent their undertaking a new career. In Hospital (No P.A.) over one-fourth of the nurses indicated that they would consider such a change with another similar percentage being undecided to this question.

TABLE 8

COMPARISON OF NURSE POPULATIONS IN CONSIDERING A  
CAREER CHANGE TO PHYSICIAN'S ASSOCIATE, 1973

Would Consider Career Change	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Yes	4	6.2	13	27.7
No	54	83.1	21	44.6
Undecided	7	10.7	13	27.7
Total	65	100.0	47	100.0

From this above data it has been found that approximately one-half of all the nurses interviewed believed the registered nurse was best suited to become a physician's associate, but fewer were personally interested in this career change. Thus, many of these nurses were apparently not in agreement with some of the nursing leaders who emphasize that nurses are independent practitioners and should not consider the more dependent assistant role.



### Institutionalizing the Physician's Associate

The increasing trend for physician's associates to be employed in institutional settings was discussed previously in Chapter I. This trend has stimulated some concerns on the part of health professionals for a variety of reasons. Of import to this study was the concern relating to the difficulties encountered with a new health profession in establishing its niche in the traditional hospital environment. For the organization to remain effective and to also be benefited, positive relationships must be developed between the physician's associate and other hospital employees.

Since several individuals in the nursing profession have expressed very diverse opinions about this recent manpower innovation, a singular reflection of the general acceptance of the physician's associate in the hospital by the study population will serve as a useful introduction to the next sections of this chapter. These sections will deal with the more specific views of nurses concerning placement, role relations and functions of the physician's associate.

For the purposes of this study, acceptance was defined to be an "agree" response to the following attitudinal statement: "There is a need for PAs in the hospital setting," which was located in a set of eleven other statements appearing in Appendix B. The responses to this statement are denoted in Table 9. By agreeing to the statement, and clearly a majority of the nurses did agree, the respondents were

granting professional recognition to both a need in the institution and, also, to the role of the physician's associate in satisfying the need. Thus, this recognized need, logically, constituted one basis for acceptance of this new health professional; however, the other responses were informative.

TABLE 9  
REACTIONS EXPRESSED BY NURSE RESPONDENTS TOWARD  
NEED FOR PHYSICIAN'S ASSOCIATE IN HOSPITAL,  
1973

Need for Physician's Associate in Hospital	Hospital (P.A.)		Hospital (No P.A.)	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Agree	46	70.8	29	61.7
Undecided	14	21.5	10	21.3
Disagree	5	7.7	8	17.0
Total	65	100.0	47	100.0

The similarity of percentages for the "undecided" category was somewhat surprising, for Hospital (P.A.) nurses were expected to have been more definite in agreement or disagreement since these nurses had been exposed to physician's associates for several years. Yet, one-fifth of the nurses in both hospitals were undecided about a need for the role of the physician's associate.

In examining the extent of disagreement, the investigator found a slightly greater percentage of Hospital (No P.A.) nurses who disagreed with such a need. Possibly this disagreement resulted from the view of some that expansion of the nursing role, which had been accomplished for three nurses in this particular hospital, would adequately fulfill any possible need without requiring input from physician's associates. This view might have also had bearing on the undecided responses.

Although there were some opposing opinions and indecision, the majority of nurses indicated a need for the physician's associate in the hospital setting.

#### Suggested Placement in Hospital

After establishing a need for the physician's associate in the hospital setting, the author proceeded to determine suggestions for placement of the physician's associate. When asked an open-ended question concerning the most appropriate clinical area for the physician's associate, the two hospital groupings differed in their recommended placement. By referring to Table 10 one can see that 66 percent of the nurses in Hospital (P.A.) believed the physician's associate should function on general medical and surgical wards. A rather large percentage of nurses in Hospital (No P.A.) saw the physician's associate as more appropriately working in the admitting area of the hospital. Due to the experience of the Hospital (P.A.) nurses, their suggestions would merit

more attention.

TABLE 10  
MOST APPROPRIATE CLINICAL AREA FOR PHYSICIAN'S  
ASSOCIATES AS SUGGESTED BY NURSE  
RESPONDENTS, 1973

Clinical Areas	Hospital (P.A.)		Hospital (No P.A.)	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
General Wards	43	66.2	11	23.4
Admitting	4	6.2	23	48.9
Outpatient	1	1.5	9	19.1
Operating Room	2	3.1	1	2.1
Special Care Units	1	1.5	1	2.1
Not specified	13	22.0	2	4.4
Other	1	1.5	0	0.0
Total	65	100.0	47	100.0

In a second open-ended question, the naming of the least appropriate area for the physician's associate was solicited. The responses, enumerated in Table 11, revealed that over one-third of all nurses believed the physician's associate should be able to work in any area of the hospital. These nurses, therefore, specified no area as inappropriate. There was a difference of opinion between the two hospitals concerning the general ward area with approximately one-

fifth of Hospital (No P.A.) nurses considering this area inappropriate.

TABLE 11  
LEAST APPROPRIATE CLINICAL AREA FOR PHYSICIAN'S  
ASSOCIATES AS SUGGESTED BY NURSE  
RESPONDENTS, 1973

Clinical Area	Hospital (P.A.)		Hospital (No P.A.)	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
General Wards	0	0.0	9	19.1
Admitting	6	9.3	3	6.3
Outpatient	1	1.5	0	0.0
Operating Room	8	12.3	7	14.9
Special Care Units	20	30.7	8	17.1
Not Specified	27	41.6	17	36.2
Other	3	4.6	3	6.4
Total	65	100.0	47	100.0

Also, more than twice as many Hospital (P.A.) nurses indicated that the special care units were inappropriate as compared to those indicating the operating room. This is a rather interesting finding since the operating room has been more often discussed in the literature as an area in which physician's associates are not well-received. This finding could possibly be explained by recalling that these special

care units had provided the opportunity for nurse expansion beyond traditional tasks and, perhaps, the physician's associate represented an intruder. Hospital (No P.A.), at the time of the interview, did not have functional special care units; but preparations were being made for such units. Hence, these nurses probably did not identify as much with special care units.

A further disclosure of attitudes toward the physician's associate in the operating room was attained by the use of a specific statement--"It is not appropriate for PAs to work as first assistants in the OR." The interviewee was requested to select one of the possible responses, which were structured on a Likert Scale. The majority of nurses in both hospitals in disagreeing with the statement indicated that such a work area was appropriate, which is reflected in Table 12. Approximately one-fourth of the nurses believed the operating room was inappropriate. More nurses responded negatively to this specific statement regarding this utilization of the physician's associate than listed this location in response to an open-ended question. This pattern probably was indicative of hard-line views over the operating room not being crystallized and of the problems experienced with open-ended questions frequently having multi-dimensional results. However, comparing the percentage responses revealed slightly more agreement with this role by Hospital (No P.A.) nurses as compared to Hospital (P.A.) nurses.

TABLE 12

ATTITUDE TOWARD PHYSICIAN'S ASSOCIATE'S WORKING  
AS FIRST ASSISTANT IN OPERATING ROOM AS  
INDICATED BY NURSE RESPONDENTS, 1973

P.A. in O.R.	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Appropriate	35	53.8	29	61.7
Undecided	11	16.9	7	14.9
Not Appropriate	19	29.3	11	23.4
Total	65	100.0	47	100.0

#### Role Relations

One of the complicated areas for resolution has revolved around the issue of developing compatible, harmonious work relationships among personnel in the hospital setting. The role of the physician's associate, structured flexibly in order to offer maximum assistance to the physician, has not been precisely defined and, therefore, has created some uncertainty. The nurses were questioned about their view of these relationships.

When asked specifically about the relationship, approximately one-half of the nurses responded that their role was complemented by the role of the physician's associate. This information appears in Table 13. Evidently,

TABLE 13

RELATIONSHIP OF PHYSICIAN'S ASSOCIATE'S ROLE  
TO NURSING ROLE AS PERCEIVED BY  
NURSE RESPONDENTS, 1973

Role Relationship	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Competing	5	7.7	8	17.0
Complementing	32	49.2	30	63.9
Little/no Effect	28	43.1	9	19.1
Total	65	100.0	47	100.0

Hospital (P.A.) nurses appeared to see distinctly different roles for nurses and physician's associates, for a rather high percentage indicated that there was little or no effect on the nursing role. Too, very few of these nurses cited any competition from the physician's associate, but Hospital (No P.A.) had a larger percentage of nurses believing the role to be a competing one. Again, this result is perhaps explained by the nurse expansion, which was occurring in this second hospital.

This line of questioning on role relations was advanced by specific inquiries concerning the effect of the physician's associate on the personal work patterns of the nurse respondents. The results are shown in Tables 14 and 15.



TABLE 14

EFFECT OF THE PHYSICIAN'S ASSOCIATE ON THE  
NUMBER OF NURSING TASKS AS SUGGESTED  
BY NURSE RESPONDENTS, 1973

Effect on Task Number	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Decreased	11	16.9	12	25.6
Increased	31	47.7	1	2.1
Not Effected	23	35.4	34	72.3
Total	65	100.0	47	100.0

TABLE 15

EFFECT OF THE PHYSICIAN'S ASSOCIATE ON THE  
COMPLEXITY OF NURSING TASKS AS SUGGESTED  
BY NURSE RESPONDENTS, 1973

Effect on Task Complexity	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Decreased	11	16.9	9	19.1
Increased	17	26.2	2	4.3
Not Effected	37	56.9	36	76.6
Total	65	100.0	47	100.0

Nearly one-half of the nurses in Hospital (P.A.) said the physician's associate increased the number of tasks performed by the nurses, which was somewhat inconsistent with their views on the role relationship. Perhaps this implied that the role was defined in terms of type of services provided without attention to the interdependencies involved. The percentage reported for "not effected" was not unexpected, for this question dealt with actual personal work patterns and some of these nurses had only occasional contact with physician's associates. Almost three-fourths of the nurses in Hospital (No P.A.) felt that if physician's associates had been present in their hospital, there would be no effect on the number of tasks to be performed by nurses. Earlier discussion related that more nurses in this latter hospital viewed admitting as the most appropriate clinical area for the physician's associate, so these nurses probably felt that contact with physician's associates would be minimal.

Although one-fourth of the nurses in Hospital (P.A.) reported that the complexity and difficulty of their tasks was increased, there was a fairly substantial number in both hospitals stating that the complexity of their personal tasks would not be effected by the physician's associate.

#### Functions of the Physician's Associate

Total patient care is traditionally viewed as a function of nurses in their provision of direct services for

and psycho-social caring of patients. One specific statement was addressed to the possible role of the physician's associate's performing these duties. Table 16 presents the distribution of responses to the statement--"It is appropriate for PAs to provide total patient care."

TABLE 16  
REACTIONS TOWARD PHYSICIAN'S ASSOCIATE'S PROVIDING  
TOTAL PATIENT CARE AS INDICATED  
BY NURSE RESPONDENTS, 1973

P.A. Provides Total Patient Care	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Agree	22	33.8	22	46.8
Undecided	6	9.2	8	17.0
Disagree	37	57.0	17	36.2
Total	65	100.0	47	100.0

The largest percentage of nurses in Hospital (No P.A.) agreed that this function was appropriate, but a majority of Hospital (P.A.) nurses generally disagreed with the physician's associate's providing such care. This response was consistent with several previously discussed views of a majority of nurses in Hospital (P.A.). These nurses believed physician's associates should be on the general wards with nurses, but they emphasized that the nursing role was either

complemented or not effected by the associate. Obviously, in part, these nurses believed the functions of the physician's associate to be different than their own functions. In line with this, disagreement to the statement would be an expected response.

The issue concerning functions is clouded with the substantial differences of opinions, which exist among members of the medical profession as to the tasks that can be properly and safely delegated to physician's associates. While the physician is ultimately responsible for his assistant and rightfully must make these determinations, the procurement of impressions of nurses at the operational level proved to be instructive.

Possible functions have been delineated by the Veterans Administration for physician's associates employed in Veterans Administration Hospitals. Twelve of these functions were selected from the ones listed in a Veterans Administration circular by use of a table of random numbers, which allowed results to be generalized to the entire list. Responses about the appropriateness of each function received values from 1 to 5 based on the Likert Scale methodology, allowing a summated score from 12 to 60 for each respondent. A value of 12 signified complete disagreement with these functions whereas a value of 60 indicated complete agreement.

This study having two total population groups permitted a comparison of the absolute mean values of these group

scores to determine if a difference existed. Although statistical testing was not appropriate in this case, a null hypothesis was formulated to add structure to the comparison. The null hypothesis was as follows:

Agreement concerning the functions of the physician's associate does not differ between those registered nurses having occupational association with physician's associates and those who do not have such association.

The data tended to support the null hypothesis, for the mean score values of the two population groups were very similar. The calculated mean and standard deviation for the summated scores and the range of scores for each hospital appear in Table 17. One striking difference was evident with

TABLE 17

ATTITUDE OF NURSING POPULATIONS TOWARD  
PHYSICIAN'S ASSOCIATE'S FUNCTIONS  
BY SUMMATED SCORE MEAN, STANDARD  
DEVIATION AND RANGE, 1973

Nursing Population	<u>Attitude Score (Functions)</u>		
	Mean	S.D.	Range
Hospital (P.A.)	44.34	8.58	47
Hospital (No P.A.)	43.85	7.12	29

the range of score values. Possible respondent scores were 12-60 with Hospital (P.A.) having a minimum score of 12 and a maximum score of 59 compared with Hospital (No P.A.) which had a minimum score of 29 and a maximum score of 58. This

indicated that one or more nurses in Hospital (P.A.) were in complete disagreement with all 12 functions, probably a reflection of general opposition to the role of the physician's associate. The mean values calculated for each hospital were large enough to conclude that these nurses were generally supportive of the physician's associate's functions outlined by the Veterans Administration, with no observable difference being noted between the two groups of nurses.

A closer look at the number of respondents disagreeing with individual functions revealed that approximately one-third in each hospital disagreed with the physician's associate's performing paracentesis. Two-fifths of all respondents also disagreed with the physician's associate's performing lumbar punctures and placing indwelling arterial catheters upon the order of a physician. These functions were evidently viewed as requiring the skills of a physician.

The other 9 functions were agreed upon by 50 percent or more of the nurses. Of these, the most substantial agreement (96 percent) was with the physician's associate's "making daily rounds to observe and record pertinent progress of patients." Three more of these functions were well accepted by over 80 percent of each nursing group, including, administering I.V. medications, performing gastric analyses, and managing cardiac arrest patients until the attending physician is present.

One function with which agreement differed between

the two hospitals was the ordering of routine medications by the physician's associate. There was generally less acceptance of this function by the nurses in Hospital (No P.A.).

#### Benefits for the Physician's Associate

Some criticism has been leveled at the salaries received by physician's associates. To reveal an agreeable salary range the nurse interviewees were asked to suggest starting and maximum salaries considered appropriate for the physician's associate. A primary assumption was that the salaries indicated would be linked to the valuation placed on the contributions of the physician's associate and to the associate's background. Estimated median starting and maximum salaries of \$11,000 and \$15,000, respectively, were found to be the same for both hospitals. The mean starting and maximum salaries indicated by Hospital (P.A.) were \$10,661 and \$15,277 while Hospital (No P.A.) set similar sums of \$9,936 and \$14,872. These mean starting salaries, which were approximately the same as the starting salary for registered nurses in the Veterans Administration Hospitals, were considered somewhat low compared to the actual starting salaries of most physician's associates.

Status accorded the physician's associate was another benefit to be considered. Since the associate's status was relative to that of others, complex and disruptive problems could arise from the nurses' self-examination of their own

contributions. Noting that the literature has suggested the physician's associate might be threatening to the status of the registered nurse in the hospital setting, the investigator explored this area in the interview. Both groups of nurses had a majority response indicating that the physician's associate was on a peer level with the registered nurse, as presented in Table 18.

TABLE 18

POSITIONAL STATUS OF THE PHYSICIAN'S ASSOCIATE  
IN RELATION TO REGISTERED NURSES AS PERCEIVED  
BY NURSE POPULATIONS, 1973

Positional Status of Physician's Associate	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Superior Status	24	36.9	14	29.8
Subordinate Status	8	12.3	4	8.5
Peer Status	33	50.8	29	61.7
Total	65	100.0	47	100.0

Relatively few believed the physician's associate to be subordinate in status and approximately one-third of the nurses in each hospital placed the associate in superior status to the registered nurse.

A null hypothesis was formulated and tested in regard



to this issue. It was as follows:

Acceptance of the role of the physician's associate by the registered nurse does not relate to her perception of his relative positional status.

The limited number of respondents for each hospital and the requirements permitting the use of Chi Square analysis influenced a meaningful combining of groups to achieve appropriate cell size. Subsequently, nurse respondents were dichotomized into those ascribing superior status to the physician's associate and those who visualized the physician's associate as other than superior (peer or subordinate). Acceptance of the role was defined by the "agree" response to the attitudinal statement--"There is a need for PAs in the hospital setting." These responses were combined for analysis into categories of "agree" and "undecided/disagree." Table 19 indicates the observed number of responses for these hospitals. A 2 x 2 Chi Square test was used for this analysis of observed differences in testing for a significant relationship.

For Hospital (P.A.) the Chi Square was calculated to be 5.15, which was significant at the .05 level with 1 degree of freedom. This indicated that the difference in acceptance was significantly related to the nurses' view of the positional status of the physician's associate. Accordingly, the null hypothesis was rejected for Hospital (P.A.). In closer examination of those who felt the physician's associate as not superior, a large percentage did not agree with a need

for the associate in the hospital. Since considered peer or

TABLE 19

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S  
ASSOCIATE BY STATUS PERCEPTION, 1973

P.A. Status	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Superior to R.N.	21	3	9	5
Not Superior	25	16	20	13

subordinate to the nurse, the physician's associate was probably not credited with unique skills or knowledge. Thus, a partial explanation for the non-agreement might be the view that an associate offered little more to the hospital than that presently offered by registered nurses. In view of the physician's associate's equal status and, perhaps, services, the nurses might have also considered the associate as a needless competitor. Those nurses expressing superiority for the physician's associate were largely in agreement with the need for the physician's associate. Hospital (No P.A.) data resulted in a Chi Square of .06, which was not significant at the .05 level with 1 degree of freedom.

#### Acceptance Related to Nurses' Characteristics

Several professional and personal characteristics of nurses were selected for testing their possible relationship

to acceptance of the role of the physician's associate in the institution. The selection of several of these characteristics was based on opinions in the literature and common inferences. The response of "agree" to the statement--"There is a need for PAs in the hospital setting" was used to define acceptance. All of the following statistical tests were completed for each hospital using 2 x 2 Chi Square analysis with a significance level of .05 and 1 degree of freedom.

Characteristics of experience, decade of graduation and age were first tested to detect any correlation existing between such factors and the acceptance of the role of the physician's associate.

The first hypothesis tested was:

Acceptance of the role of the physician's associate by the registered nurse does not relate to her total years of experience.

This null hypothesis was accepted for both nursing populations after completion of Chi Square analysis. A Chi Square of .01 was recorded for Hospital (P.A.) and a value of 1.82 for Hospital (No P.A.). Both of these Chi Squares were not significant at the .05 level and 1 degree of freedom. Table 20 presents the observed number of responses for those nurses with 10 years of employment or less and those with over 11 years.

Another null hypothesis tested in this general area was:

Acceptance of the role of the physician's associate

by the registered nurse does not relate to her decade of graduation.

TABLE 20

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S ASSOCIATE BY YEARS OF EMPLOYMENT, 1973

Years of Employment	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
0-10	15	6	12	4
11-40	31	13	17	14

This null hypothesis was accepted for both nursing groups based on the Chi Square results. Chi Squares were 1.30 for Hospital (P.A.) and 1.73 for Hospital (No P.A.), which were insignificant at the .05 level and 1 degree of freedom. Table 21 offers the observed number of responses for comparative purposes.

TABLE 21

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S ASSOCIATE BY DECADE OF GRADUATION, 1973

Decade of Graduation	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Pre 1956	27	14	12	11
Post 1956	19	5	17	7

The null hypothesis tested in regard to age was the following:

Acceptance of the role of the physician's associate by the registered nurse has no relationship with her age.

This null hypothesis was accepted for each group of nurse respondents. The 2 x 2 Chi Square test yielded values of 1.13 for Hospital (P.A.) and of 3.19 for Hospital (No P.A.), which were not significant at the .05 level and 1 degree of freedom. Table 22 reflects the observed numbers used in this calculation. The rather large Chi Square for Hospital (No P.A.) should encourage additional testing of this characteristic with a large sample of registered nurses. If age were found to be related, the health services administration attempting to introduce the physician's associate could make proper adjustments.

TABLE 22

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S ASSOCIATE BY AGE, 1973

Age	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
20-34	13	3	14	4
35-64	33	16	15	14

The salary grade of the nurse was another variable

examined in relation to acceptance. Two salary categories were formed by grouping those nurses in the Veterans Administration having Junior, Associate and Full grades into one group representing those nurses earning less than the typical physician's associate. The second group, representing those possibly earning more than the physician's associate, was composed of nurses with the grades of Intermediate Associate, Senior Full and Chief Intermediate. Table 23 presents the responses by these categories of salary.

TABLE 23  
FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S  
ASSOCIATE BY SALARY GRADE, 1973

Salary Grade	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Grades 1-3	32	8	18	9 <sup>a</sup>
Grades 4-6	14	11	8	5

<sup>a</sup>Seven salary grades not specified.

The null hypothesis for testing was:

Acceptance of the role of the physician's associate by the registered nurse does not relate to her salary grade.

This null hypothesis was rejected for Hospital (P.A.) with the conclusion that acceptability of this role did relate to the salary grade of the nurse. The Chi Square was calcu-

lated to be 4.28, which was significant at the .05 level and 1 degree of freedom. The null hypothesis was accepted for Hospital (No P.A.). This Chi Square equaled .10, which was not significant at the .05 level and 1 degree of freedom.

One partial explanation offered for the significance found in Hospital (P.A.) could be that nurses at higher salary levels perceived the physician's associate eventually competing with them for salary, and thus, found more difficulty in accepting the need for the associate.

With respect to the territoriality issue, this study also investigated characteristics, such as the type of nursing service with which the nurse identified and worked and her rank in the nursing service. One null hypothesis tested was:

Acceptance of the role of the physician's associate by the registered nurse has no relationship to her major clinical service affiliation.

No correlation was found between acceptance of the physician's associate and affiliation with either medical nursing or surgical nursing. The null hypothesis was accepted based on the Chi Square of 1.36 calculated for Hospital (P.A.) and of .01 for Hospital (No P.A.). These values were not significant at the .05 level and 1 degree of freedom, but the numbers used in calculation are offered for examination in Table 24.

The nurses were, likewise, categorized by their position as a staff nurse or as a nurse with supervising responsibilities to test respective acceptance of the role of

the physician's associate. The following null hypothesis was formulated and tested:

Acceptance of the role of the physician's associate by the registered nurse is unrelated to her ranking in the nursing service.

TABLE 24

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S ASSOCIATE BY CLINICAL SERVICE, 1973

Clinical Service	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Medicine	29	9	15	9
Surgery	17	10	14	9

This null hypothesis was accepted for both hospital populations with the conclusion that acceptance of the physician's associate's role had no relationship to the hospital rank of the nurse. Chi Square values were .36 for Hospital (P.A.) and .74 for Hospital (No P.A.); neither were significant at the .05 level and 1 degree of freedom. Table 25 presents the observed responses for these categories.

A final characteristic tested in this section was based on the membership status of nurses in professional associations. The null hypothesis tested was:

Acceptance of the role of the physician's associate by the registered nurse is unrelated to her membership in professional associations.



TABLE 25

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S  
ASSOCIATE BY NURSING RANK, 1973

Nursing Rank	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Staff Nurse	37	14	24	13
Supervisory Nurse	9	5	5	5

Acceptance of the null hypothesis resulted from the following Chi Square analyses: Chi Squares equaled .11 for Hospital (P.A.) and .89 for Hospital (No P.A.). These were not significant at the .05 level and 1 degree of freedom.

The rather small Chi Square values tended to support the previously stated null hypothesis and, therefore, offered one contradiction to the opinion that professional association membership might have a negative influence on the acceptance of the role of the physician's associate by the nurse. Importantly, one might surmise that these institutional nurses were not subscribing to several opinions advanced by leaders in the nursing associations and by those writing in nurses' professional journals. Table 26 presents the observed number of reactions for comparative purposes.

#### Role of the Physician's Associate

Data were gathered from registered nurses at two

TABLE 26

FREQUENCY OF NURSES' RESPONSES TO NEED FOR PHYSICIAN'S  
ASSOCIATE BY PROFESSIONAL ASSOCIATION  
MEMBERSHIP, 1973

Professional Association	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Agree	Undecided/ Disagree	Agree	Undecided/ Disagree
Member	14	5	12	5
Not Member	32	14	17	3

hospitals to specifically address the possible effect of occupational association on acceptability of the physician's associate. Occupational contact with physician's associates has been generally postulated as a factor which positively influences the associate's acceptance. This study permitted a comparison of attitudinal responses from nurses who had worked with physician's associates and from those nurses who knew about the concept but had experienced no working exposure with physician's associates.

An inquiry utilized early in the interview attempted to determine if views of the respondent had changed toward the concept since first hearing about it. This information is presented in Table 27.

About one-third of the nurses in Hospital (P.A.) responded that their views had either remained positive or changed positively to the concept. Positive views were,

also, reported by approximately 42 percent of Hospital (No P.A.) nurses.

TABLE 27

VARIATION IN VIEWS TOWARD PHYSICIAN'S ASSOCIATE  
CONCEPT BY NURSE RESPONDENTS, 1973

View of Concept	<u>Hospital (P.A.)</u>		<u>Hospital (No P.A.)</u>	
	Number of Nurses	Per- centage	Number of Nurses	Per- centage
Changed Negatively	6	9.2	0	0.0
Changed Positively	6	9.2	4	8.5
Stayed Negative	2	3.1	1	2.1
Stayed Positive	16	24.6	16	34.1
Stayed Mixed	35	53.9	26	55.3
Total	65	100.0	47	100.0

Mixed feelings toward the concept were indicated by a large number of respondents. The 55 percent of the nurses at Hospital (No P.A.), who made this reply, was an expected finding; for these nurses had not had the opportunity to assess the applied concept in a working experience. However, it was unexpected that both hospitals would reflect only 1 percent difference in the number of "mixed" responses. Approximately 54 percent of the nurses at Hospital (P.A.) informed the interviewer that their views toward the concept

had remained mixed. It must be recalled that physician's associates had been employed in this latter hospital for almost three years; this length of time should have prompted more well-defined views.

Additionally, other responses for Hospital (P.A.) should be carefully noted. One of these responses revealed that almost 10 percent of these nurses had changed their views negatively, which they reported as being related to working contact. Common characteristics were not apparent for the five medical nurses and one surgical nurse responding in this category. Certainly, this result should not be used to generalize that exposure to physician's associates would engender negativism to the concept, for an equal percentage of nurses indicated that their views had changed positively. Nevertheless, the reasons for this negative change in viewpoint should be explored for minimization of potential problems.

In a comprehensive approach to ascertain views of nurses toward the role of the physician's associate, a series of twelve attitudinal statements were incorporated into the interview. The Guttman-Suchman pattern of responses allowed the respondent to indicate agreement, disagreement or indecision with each statement. Too, for each response, the interviewee recorded an intensity of feeling about his previously selected response. This separate intensity measure contributed strength to the comparison, for individuals

responded to the content of a statement at varying levels of feeling. The possible levels of intensity were: "Very strongly," "Fairly strongly," "Not so strongly," and "Not at all strongly," which were assigned values of four to one in the ranked order just listed. These additive values allowed a mean intensity score to be assigned for each statement.

In contrast to the utilization of a uni-dimensional scale, comparison of the two hospitals regarding these twelve statements was accomplished on a single statement basis because of the exploratory nature of this study and the need for examination of several dimensions. Obtaining the total population of nurses at these two institutions sanctioned a direct comparison of the results using observed proportions, with statistical testing being inappropriate. However, a null hypothesis was generated as a point of departure for discussion. It was as follows:

Registered nurses who have occupational association with physician's associates have the same level of acceptance regarding the role of the physician's associate as those who have not had such exposure.

In accordance with the established methodology, the twelve attitudinal statements were written in both positive and negative directions and randomized for placement in the interview schedule. These statements have been grouped for discussion purposes into four topical areas, including, need for the role, effect on delivery system, patients' acceptance and professional relations. Each topical area will

be discussed using the results from applicable statements. The frequency of responses for each hospital group will be illustrated depicting both the reactions to the content of the statement and the corresponding intensity levels for each.

#### Need for the Role

Four statements were utilized in assessing reactions to the need for the physician's associate as perceived by the two groups of nurses. The first of these was the one used previously as a criterion of general acceptance, which was as follows: "There is a need for PAs in the hospital setting." Figure 1A illustrates the distribution of nurses as responding "agree," "undecided" or "disagree" to the statement content. Figure 1B illustrates the distribution of nurses according to their intensity of feeling toward the chosen response.

Clearly a majority of nurses in both hospitals agreed with the above statement but one-fifth remained undecided. Also, there was a slightly greater percentage of Hospital (No P.A.) nurses who disagreed with the need for these health workers. This could be partially explained by the previously discussed expansion of nursing roles, which was probably considered to satisfy any possible needs.

Figure 1B illustrates that stronger feelings were expressed by Hospital (P.A.), for these nurses had a mean intensity value of 3.26 as compared to 3.00 for Hospital (No P.A.), which had a smaller percentage of nurses registering

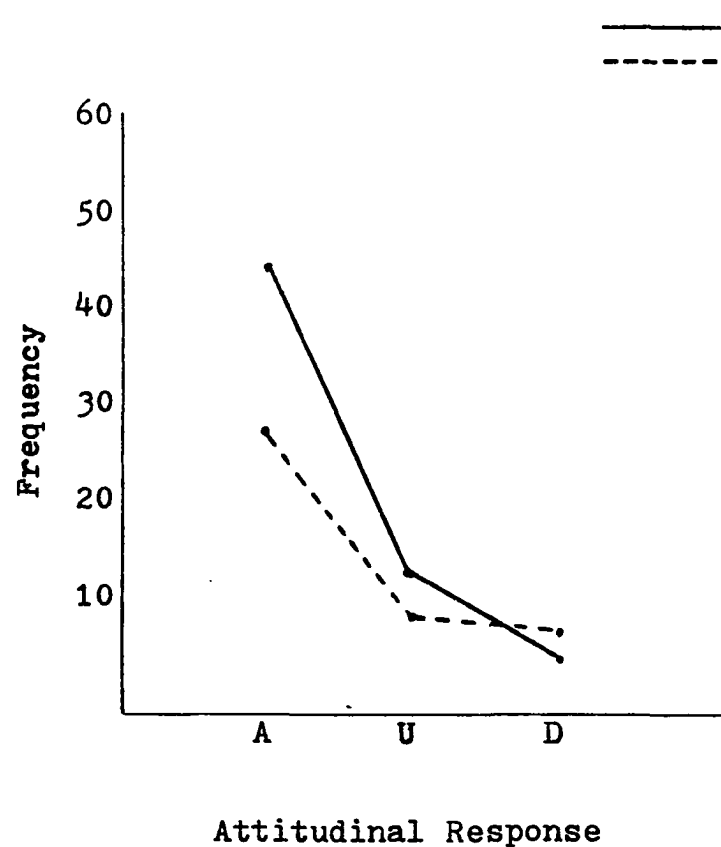


Figure 1A. Response to Need for Physician's Associate.

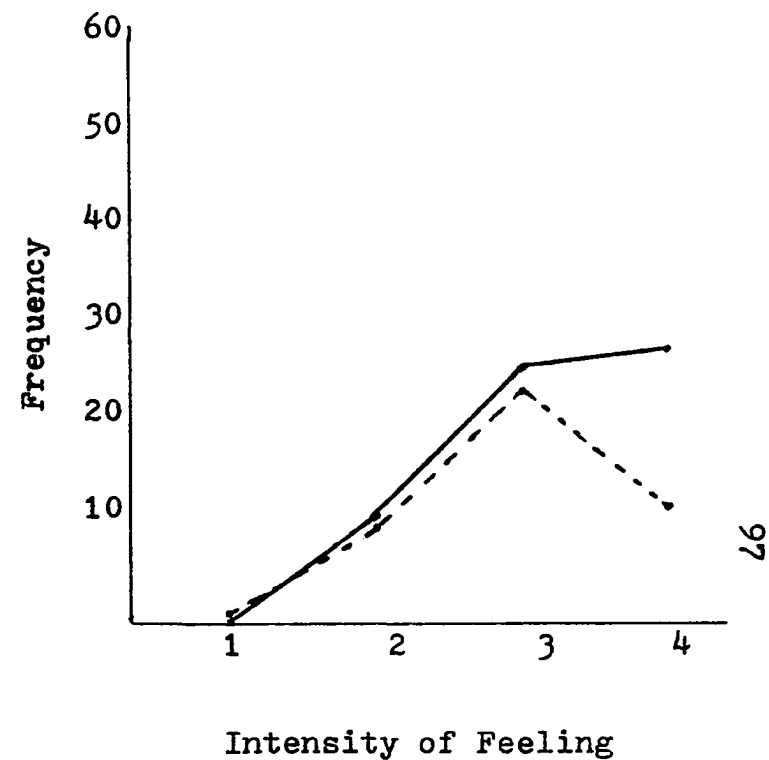


Figure 1B. Intensity of Feeling Toward Need for Physician's Associate.

"strongly agree." In this particular comparison Hospital (P.A.) nurses had indicated more intense feelings and more agreement with this statement than did nurses in the other hospital.

A second statement in this topical area was the following: "The PA is a much needed assistant for the physician." Figures 2A and 2B illustrate the distribution of responses to this statement.

This statement produced very similar responses for both hospitals with no differences being observable. The high number of "agrees" gave recognition to the role of the physician's associate in providing some relief for the typically overworked physician. Only 10 percent disagreed with the statement, possibly because they viewed nurses as providing sufficient assistance to the physician. The mean intensity values were 3.29 for Hospital (P.A.) and 3.14 for Hospital (No P.A.), with the illustration revealing fewer responses in the "very strongly" category for Hospital (No P.A.).

A third statement for consideration in this section was the following: "The money spent on training PAs could be better spent on training additional graduate nurses." Figures 3A and 3B illustrate the distribution of responses to this statement.

A majority of nurses disagreed with the statement, which was negatively phrased to the physician's associate



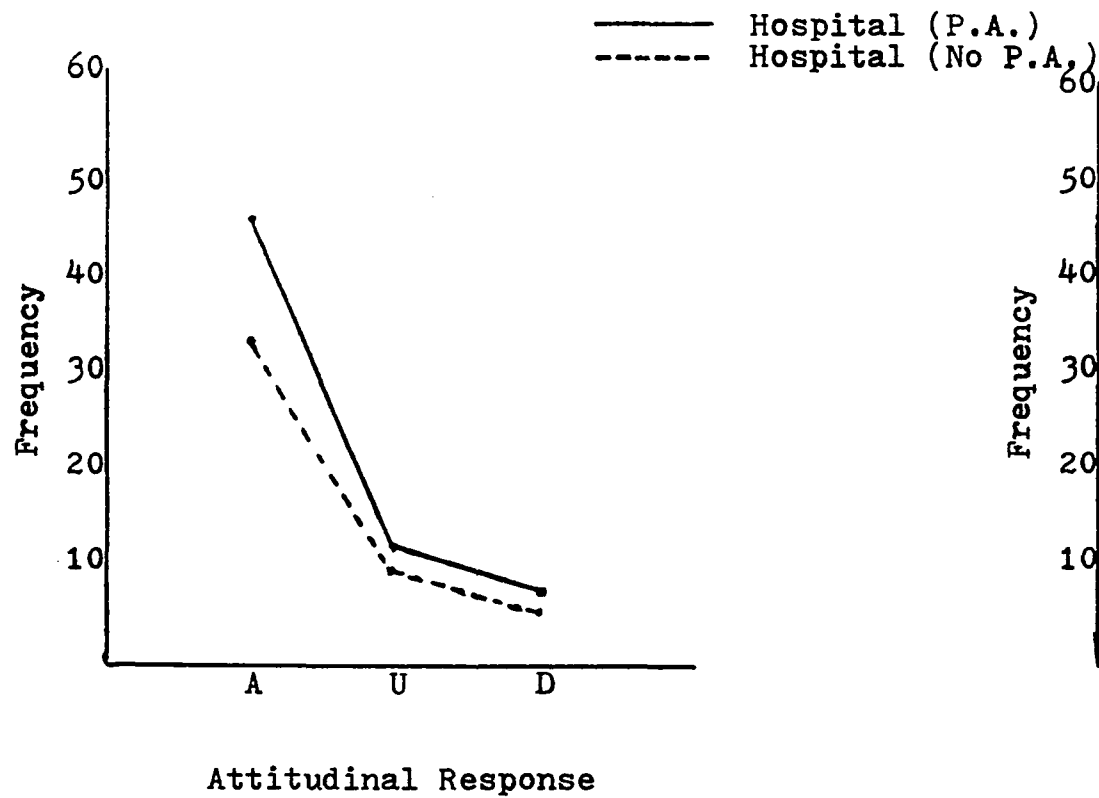


Figure 2A. Response to Physician's Associate as Much Needed Assistant.

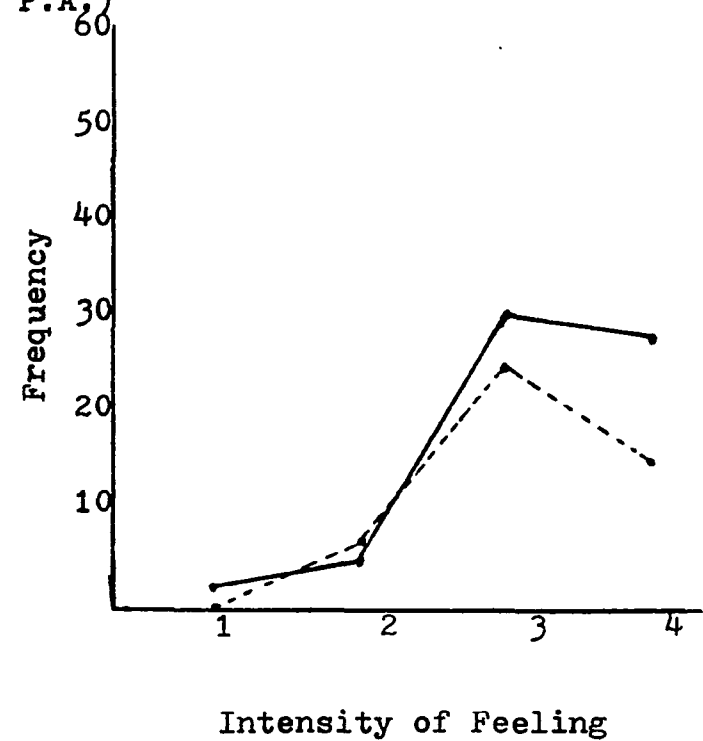


Figure 2B. Intensity of Feeling Toward Physician's Associate as Much Needed Assistant.

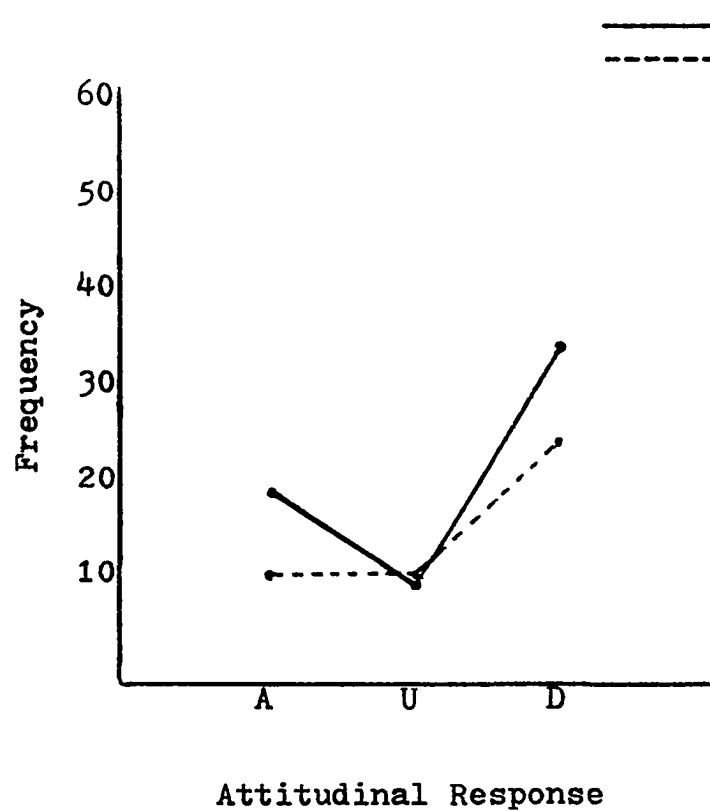


Figure 3A. Response to Training More Nurses.

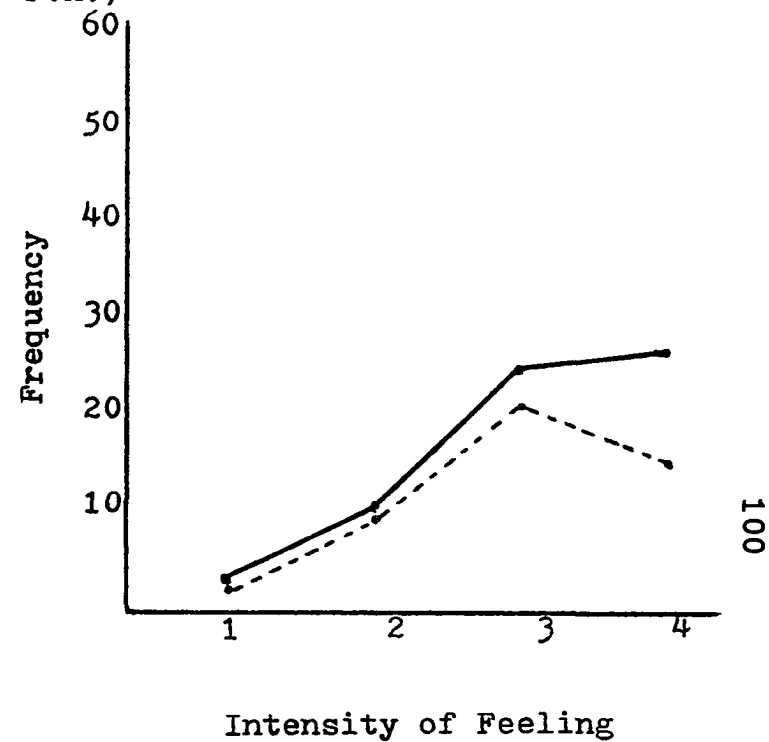


Figure 3B. Intensity of Feeling Toward Training More Nurses.

concept. Hospital (No P.A.) nurses were slightly more undecided while Hospital (P.A.) nurses tended to offer more agreement to the statement. Those nurses who did agree probably believed that nurses had as much or more to contribute as did the physician's associate. This view presented some indication of disagreement with the need for physician's associates. Hospital (P.A.) nurses were again more intense in feeling about responses to this statement by having a mean intensity value of 3.16 compared to 3.04 for Hospital (No P.A.).

A fourth statement was--"We should decrease the number of physician's associates being educated." Figures 4A and 4B present the response distributions.

Both hospitals were rather undecided, which might be explained by the ambiguity introduced in referring to the number of physician's associates. Actually, few would be aware of the number currently being educated so it would be difficult to assume a position on decreasing the number. Hospital (P.A.) did have a few more nurses in agreement with this negative statement than did the other hospital. Perhaps this might be explained by the fact that the former hospital served as a clinical site for student physician's associates, who probably increased the work load for some nurses. Feelings toward the responses were less intense in Hospital (No P.A.), which had a mean intensity value of 2.87 as compared with 3.21 in Hospital (P.A.).

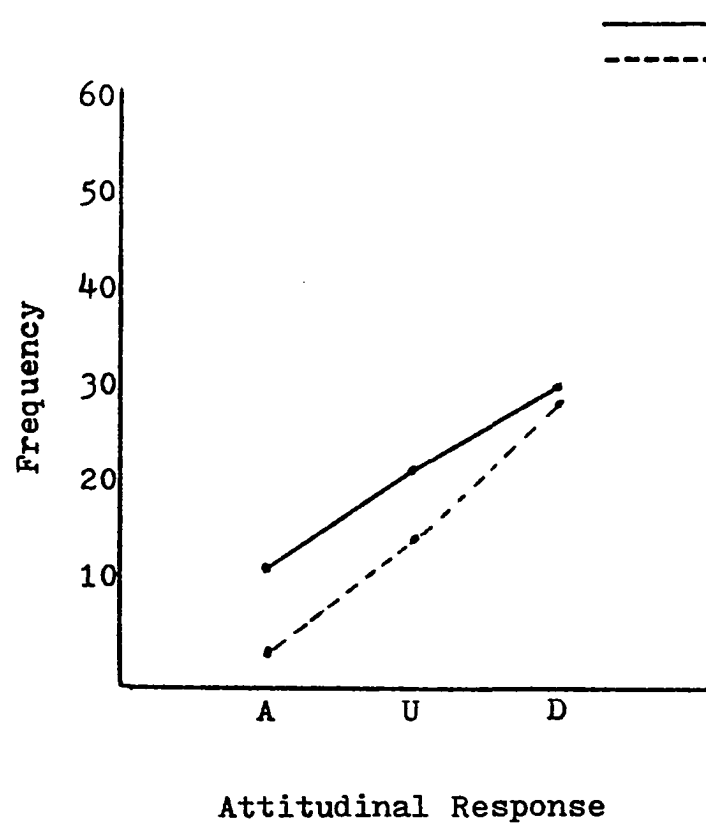


Figure 4A. Response to Decreasing the Number of Physician's Associates Educated.

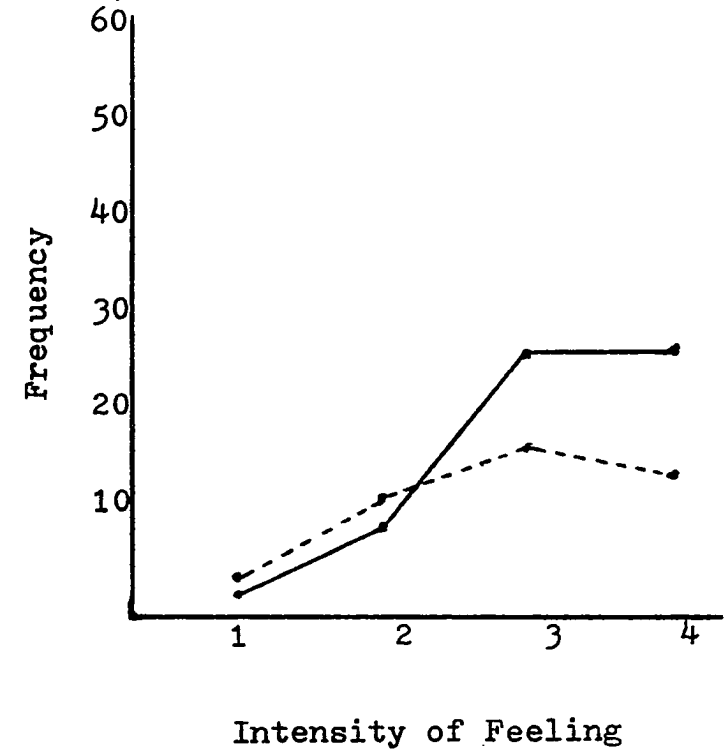


Figure 4B. Intensity of Feeling Toward Decreasing the Number Educated.

### Effect on Delivery System

The impact of this manpower innovation on the health care delivery system, as visualized by the nurses, was a second general area for exploration. Three statements appeared, logically, to relate to this particular topic. The first of these was: "The PA is a valuable member of the patients' health care team." Figures 5A and 5B illustrate the resultant distribution of responses.

Evidently, more value was placed on the physician's associate as a team member by nurses in Hospital (No P.A.), for very little disagreement was evidenced in that hospital. Approximately 70 percent of the nurses at Hospital (P.A.), also, agreed with this statement, which suggested support for the role of the physician's associate in the health care team. The mean intensity values were 3.23 for Hospital (P.A.) and 2.96 for Hospital (No P.A.), which were weighted most often at the "Fairly strongly" level.

A second statement in this grouping was--"Patient care is improved with the contributions of the PA." Figures 6A and 6B illustrate the respective responses.

Since improving patient care should be the foremost objective with health manpower innovations, reactions to this statement were considered important. Although a majority of nurses in each hospital agreed that patient care was improved, one-fifth of Hospital (P.A.) nurses disagreed. Apparently, the pattern of responses, thus far, has indicated that there

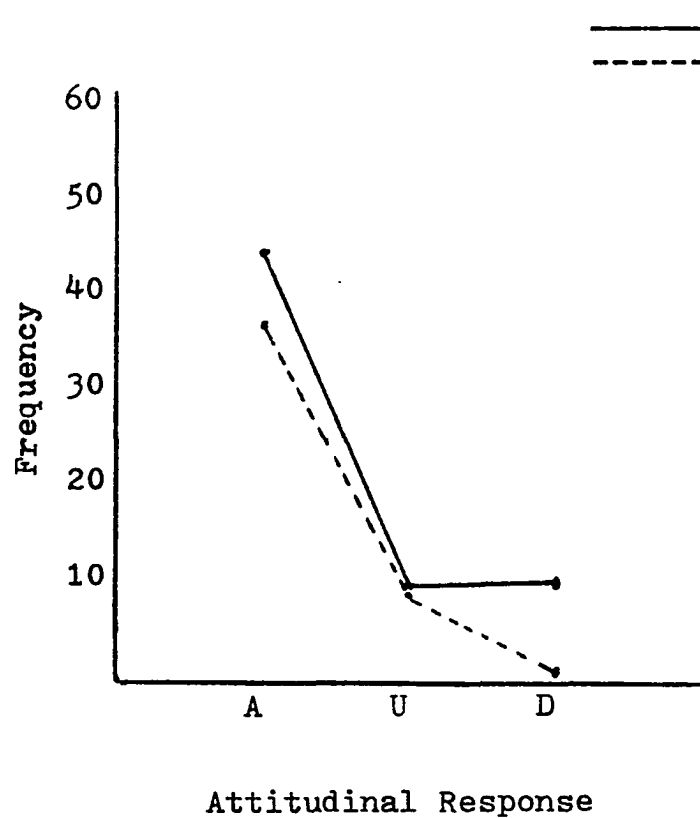


Figure 5A. Response to Physician's Associate as Valuable Team Member.

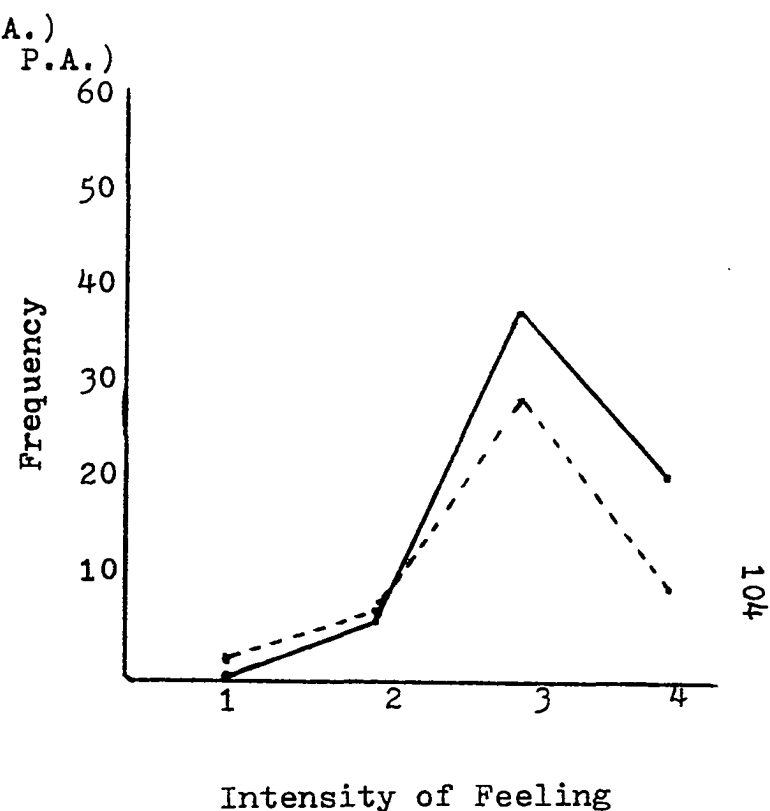


Figure 5B. Intensity of Feeling Toward Physician's Associate as Valuable Team Member.

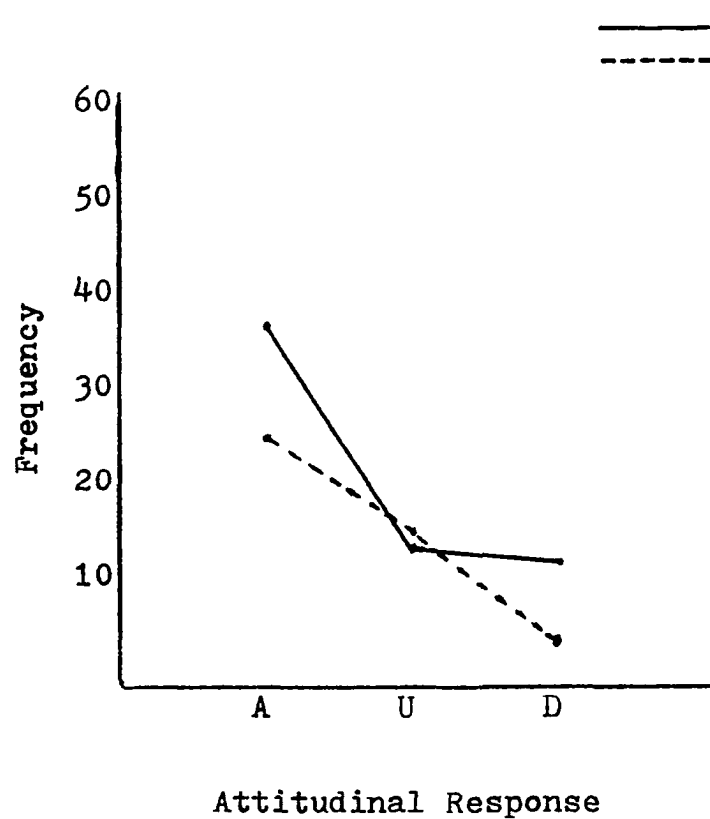


Figure 6A. Response to Improvement of Patients' Care.

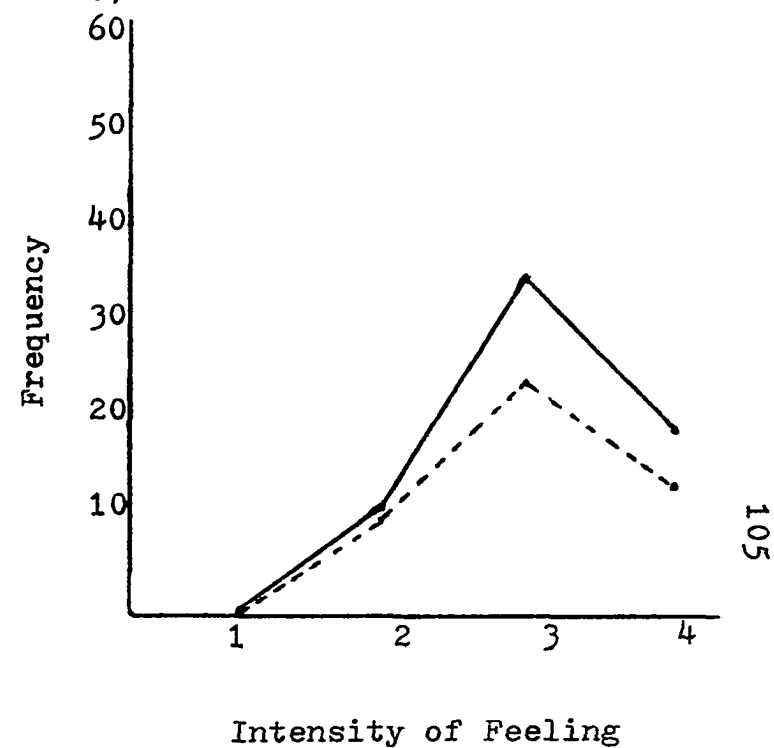


Figure 6B. Intensity of Feeling Toward Improvement of Patients' Care.

was 15-20 percent of the nurses in Hospital (P.A.) who were not in agreement with the role of the physician's associate. Noticeably, more than 40 percent of the nurses in each hospital did not take a positive stance on this statement, with the higher level of indecision at Hospital (No P.A.)--probably indicative of their lack of experience with physician's associates. The mean intensity values were 3.12 and 3.06 for Hospital (P.A.) and Hospital (No P.A.) respectively with the "fairly strongly" category chosen most often for both hospitals.

The final statement relating to the delivery system was--"The quality of medicine in the U.S. may lessen with the utilization of PAs." Figures 7A and 7B illustrate the responses to this statement.

This negatively phrased statement was based on the "second-class medicine" contention discussed in the literature. Surprisingly, one-third of the nurses at Hospital (P.A.) agreed with the statement, which was twice as many who agreed at Hospital (No P.A.). The majority of nurses in this latter hospital disagreed with the statement. Disagreement with this statement might have been partially based on the belief that a single manpower category could not have a very great impact on the quality of medical care. As compared to the previous two statements in this section, slightly more intensity of feeling was noted with this item, for Hospital (P.A.) had a mean intensity value of 3.32 and Hospital (No



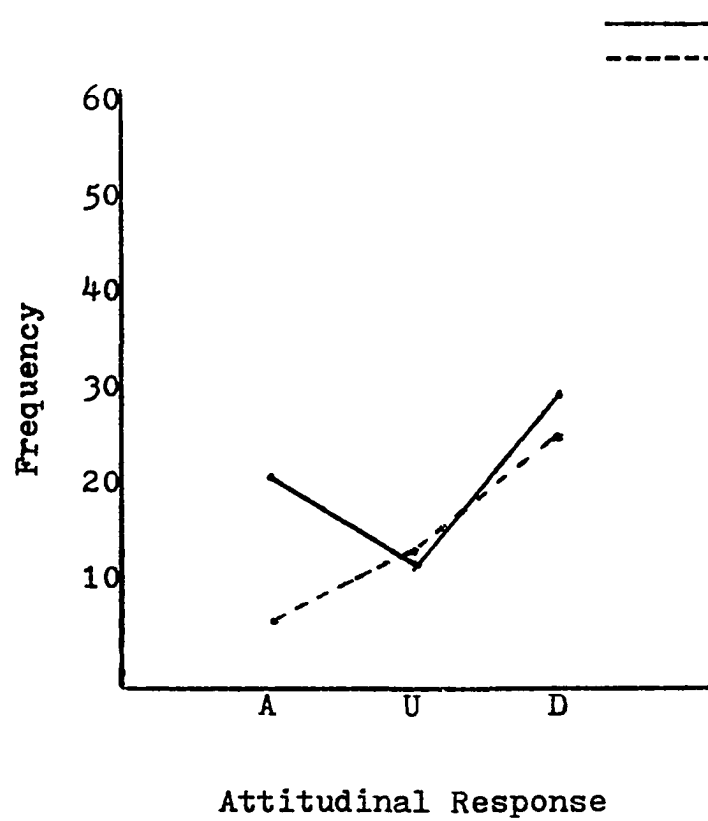


Figure 7A. Response to Lessening the Quality of Medicine.

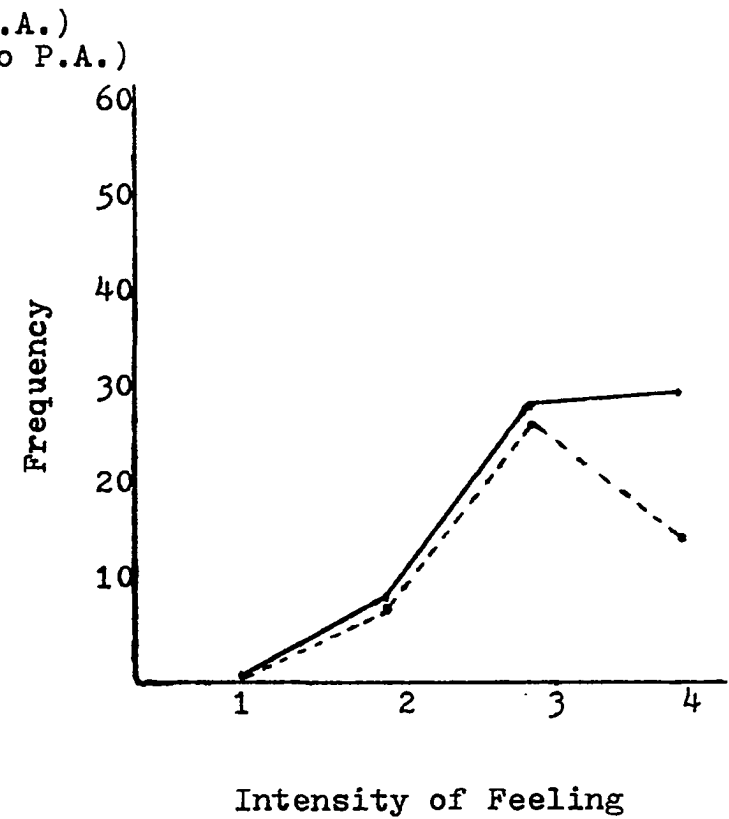


Figure 7B. Intensity of Feeling Toward Lessening the Quality of Medicine.

P.A.) had a value of 3.14.

### Patients' Acceptance

Three statements were generated to reflect the observations and views of the nurses concerning patients' acceptance of the physician's associate. The first statement was--"Patients lack confidence in the abilities of PAs." Figures 8A and 8B present the frequency distributions for the responses.

Hospital (No P.A.) nurses having no contact with physician's associates were naturally undecided about patients' confidence. Approximately one-third of the nurses in Hospital (P.A.) agreed with this negative statement, but this secondary source of information on patients' acceptance must be considered only as providing some insight and as being inconclusive. A mean intensity value of 3.12 was recorded for Hospital (P.A.) and the intensity for Hospital (No P.A.) declined to 2.79, due to the large number of "undecideds."

The second statement in this section was--"Patients are willing to receive medical care by PAs." Figures 9A and 9B illustrate the response distributions.

Once more, Hospital (No P.A.) indicated a large number of "undecideds" to this statement, but a similar number of "agrees." Hospital (P.A.) nurses were mostly in agreement with this statement, although there was some disagreement and indecision. Both nursing populations showed less intensity

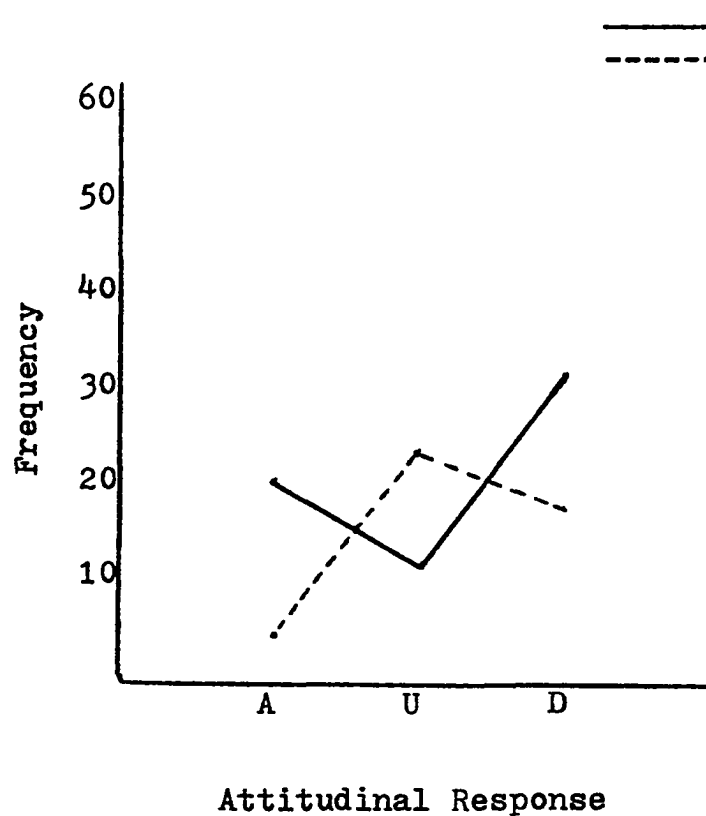


Figure 8A. Response to Patients' Lacking Confidence.

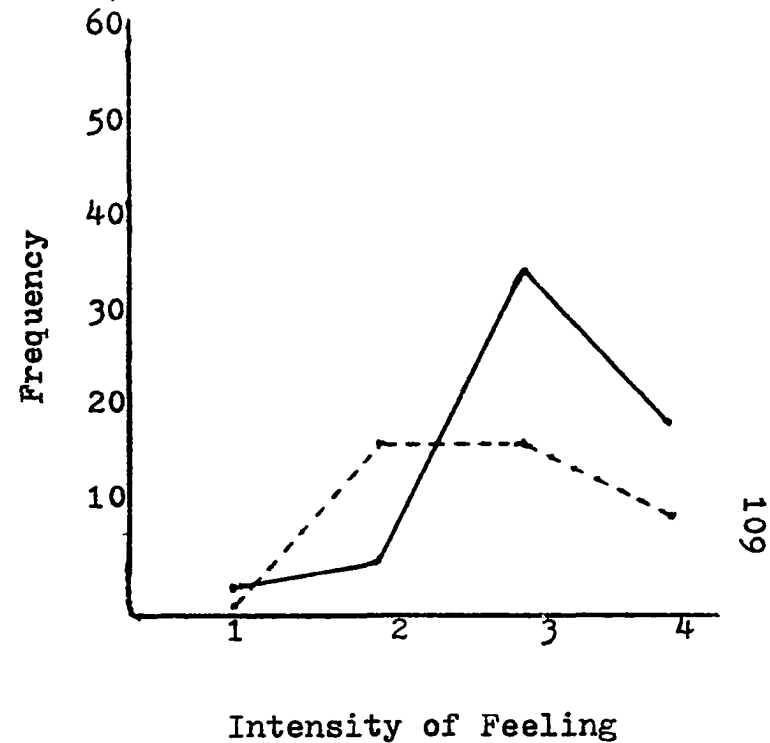


Figure 8B. Intensity of Feeling Toward Patients' Lacking Confidence.

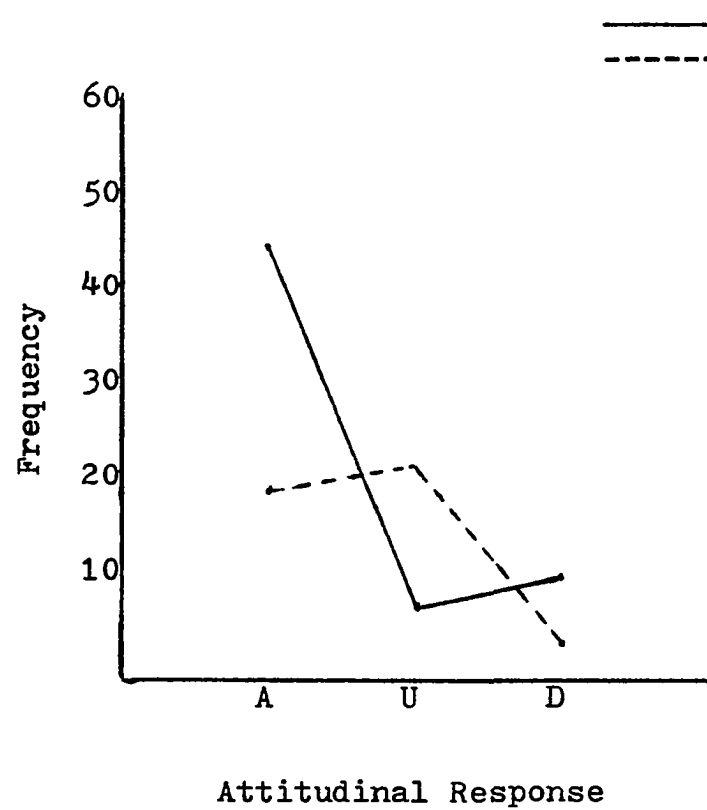


Figure 9A. Responses to Willingness of Patients to Receive Medical Care.

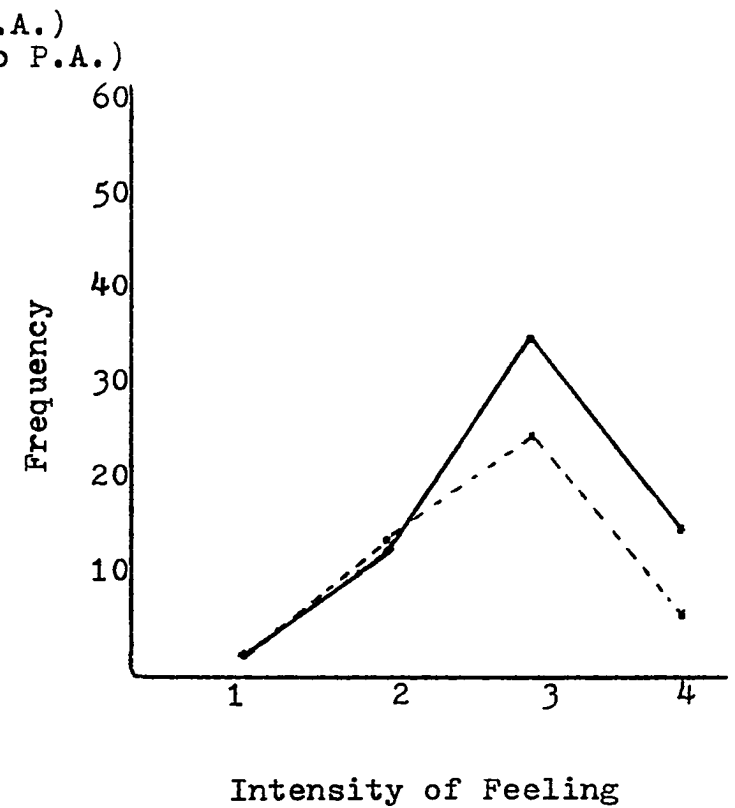


Figure 9B. Intensity of Feeling Toward Willingness of Patients to Receive Medical Care.

of feeling about their responses to this statement. Mean values were 2.96 for Hospital (P.A.) and 2.74 for Hospital (No P.A.).

The third statement, more personally oriented concerning patients' acceptance, was--"It would be permissible for a PA to render services to my family." Figures 10A and 10B present the distribution of responses to this statement.

Nurses in Hospital (P.A.) were almost equally divided in reactions to this statement. Twice as many of these nurses disagreed with the physician's associate rendering services to their family as those disagreeing in Hospital (No P.A.). The latter hospital nurses appeared to be more personally accepting of physician's associate's services. Mean intensity values were 3.24 for Hospital (P.A.) and 3.10 for Hospital (No P.A.).

#### Professional Relations

The fourth and final topical area considered the effects the physician's associate had on professional relationships, as viewed by nurses. Two statements were utilized with the first being: "The PA interferes with the professional relationship between the RN and MD." Figures 11A and 11B illustrate the response distributions.

One-fourth of the nurses in Hospital (P.A.) agreed with this negative statement but a majority in both hospitals disagreed. Approximately one-fourth of the nurses in Hospital

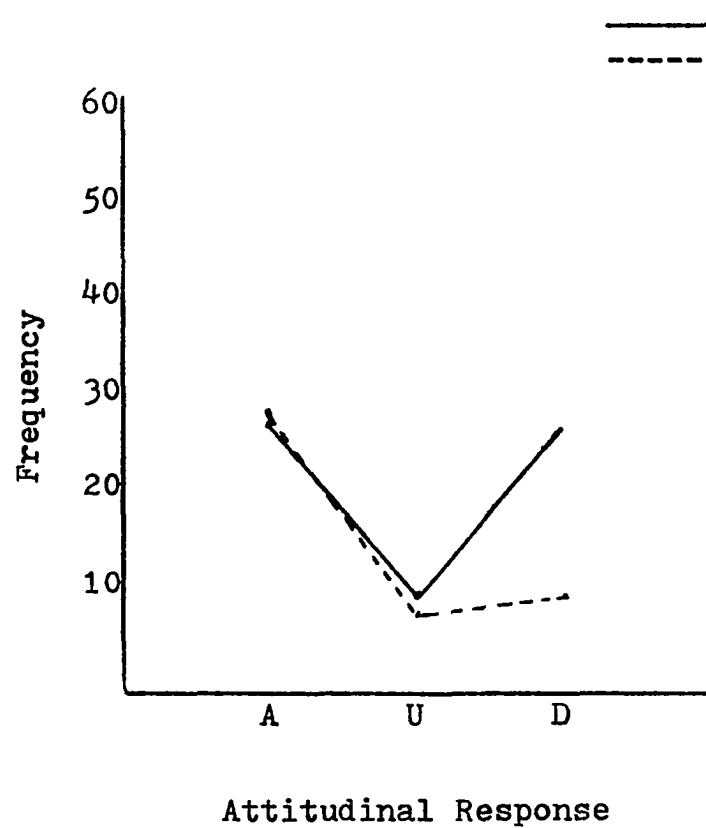


Figure 10A. Response to Physician's Associate Providing Services To Family.

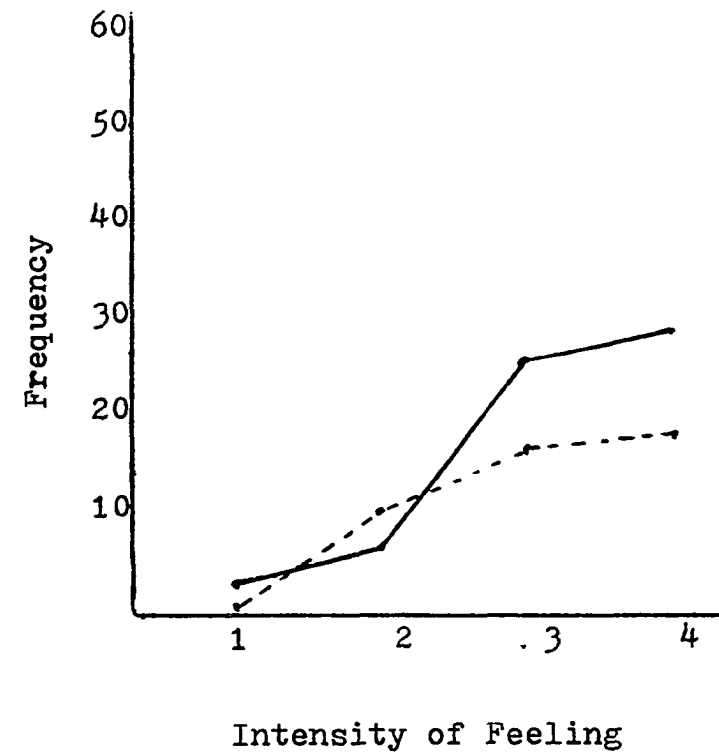


Figure 10B. Intensity of Feeling Toward Physician's Associate Providing Services To Family.

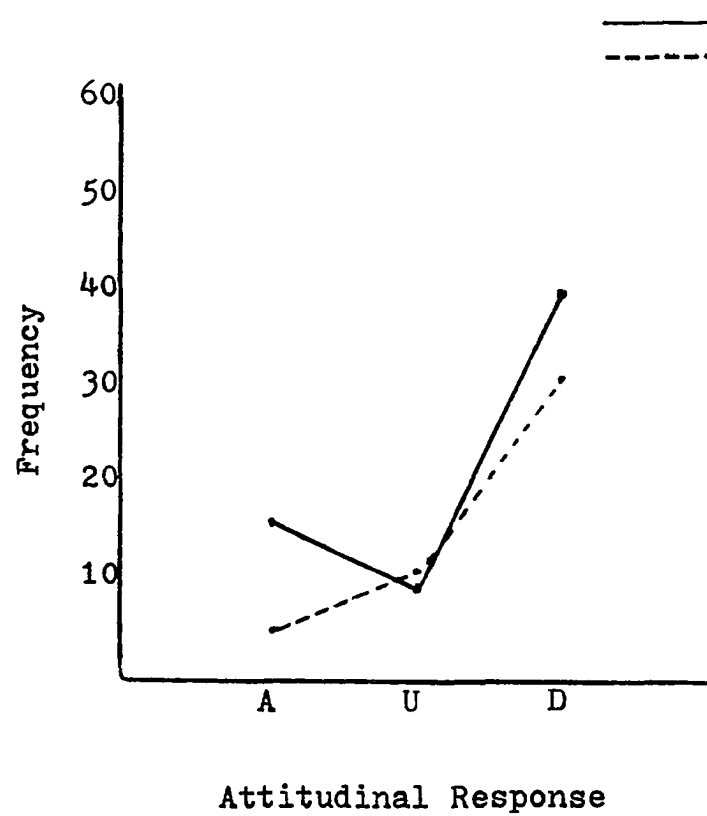


Figure 11A. Response to Interference with Professional Relationship.

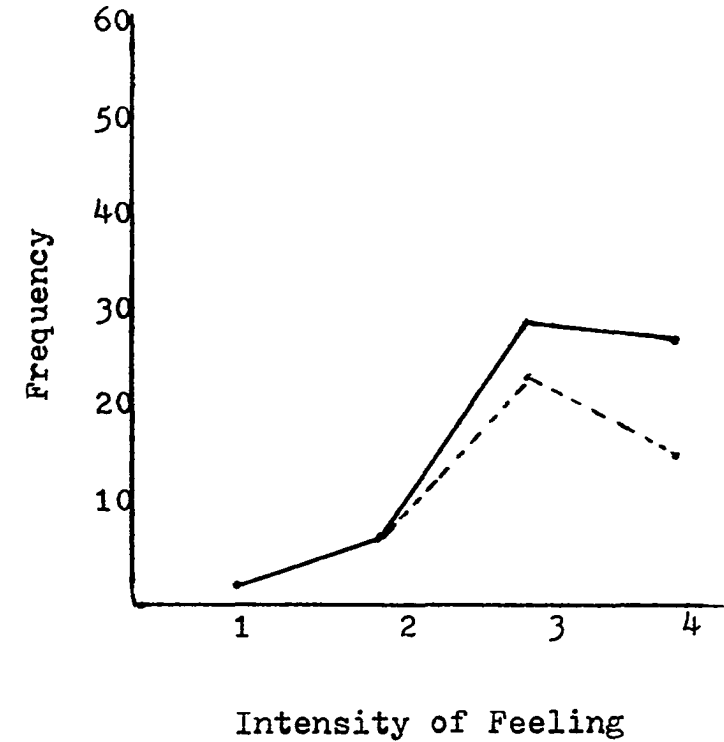


Figure 11A. Intensity of Feeling Toward Interference with Professional Relationship.

(No P.A.) were undecided, thus reserving judgment until they personally worked with physician's associates. Mean intensities were 3.25 for Hospital (P.A.) and 3.06 for Hospital (No P.A.).

The second statement for this section was--"The PA is infringing on the nursing role." Figures 12A and 12B illustrate the frequencies of responses.

The data suggested that there was very little concern in either group that the physician's associate infringed on the nursing role, with only 10 percent agreeing with this statement. Other findings, previously discussed, also indicated that many nurses believed the physician's associate had little or no effect on their role. Obviously, a greater number of nurses in Hospital (P.A.) felt very strongly about their response to this statement, for they had a mean intensity score of 3.44, which was the highest for any of the twelve statements. Hospital (No P.A.) had a mean of 3.08, which was consistent with their other intensity scores.



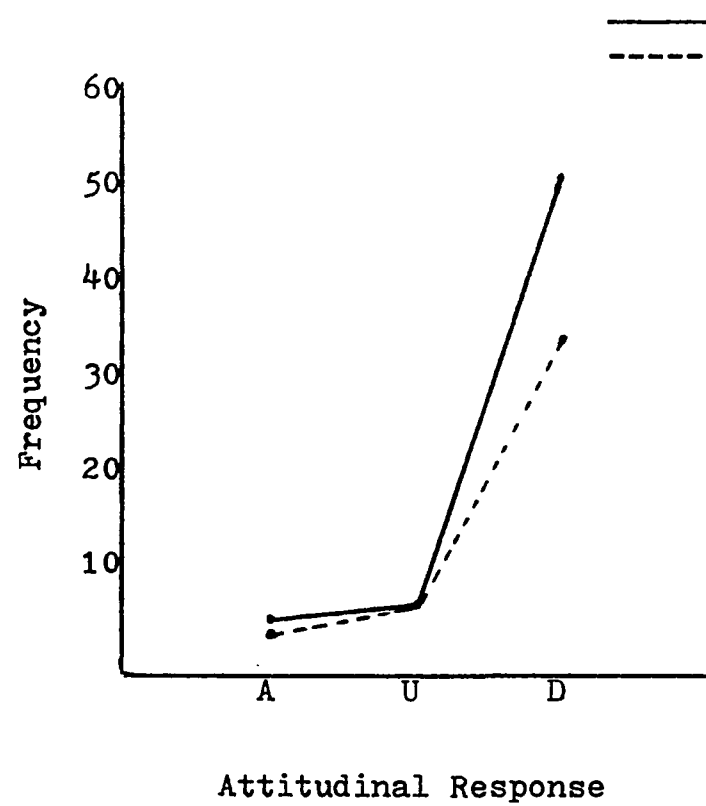


Figure 12A. Response to Infringement on Nursing Role.

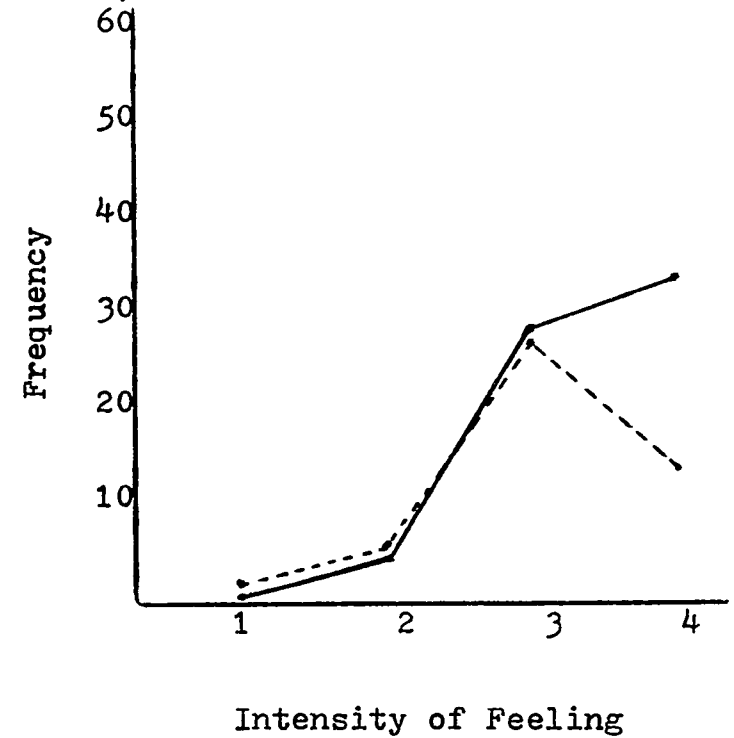


Figure 12B. Intensity of Feeling Toward Infringement on Nursing Role.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Summary

The viability of the new occupation of the physician's associate has not been conclusively established even though significant pressures exist to train large numbers of these health workers. Approximately one-half of the academically trained associates are presently located in institutions and have generally received momentous responsibilities based on their close affiliation with the physician. Apparently, many have endorsed the concept of providing highly trained office-based and clinical-aid assistants to ease the work load of the busy physician, yet diversity of opinion concerning the employment of these physician's associates in hospital settings remains prevalent.

Therefore, the impact of this new professional on the traditional hierarchical positioning of hospital workers is questioned, for effective delivery of health services is predicated upon the harmonious interrelationships of a team of health personnel. Possible territoriality conflicts in addition to placing strain on the organization, certainly, could

reduce the intended potential of the physician's associate and bias patients' reactions toward him. One relation of particular import is association with the registered nurse, since this professional is often associated with the hospital setting secondarily to the physician. Due to the status conferred by her place in the hospital, the attitudes of the nurse are, perhaps, ultimately conveyed to the patient and are also somewhat influential to other hospital employees in formulating opinions. However, positive attitudes in the form of acceptability and an appreciation of the physician's associate have been purported to result with nurses' gaining an understanding of the associate's functions and contributions through occupational association.

Accordingly, this exploratory study compared the expressed attitudes and views of nurses in an institutional setting. A total of 112 nurses employed in two Veterans Administration Hospitals were interviewed pertaining to the role of the physician's associate. These two populations of nurses were characteristically similar excepting the differences in age distribution and working exposure. One group had worked with graduate physician's associates for approximately three years and the second group had experienced no occupational contact with physician's associates.

### Conclusions

Definitive conclusions were elusive in an exploratory study of this nature, but insights were gained into an area

of much speculation and controversy. Findings of similar pilot and exploratory studies will ultimately result in the formulation of testable hypotheses. As a basis for future studies, the role of the physician's associate in an institutional setting was explored and will be discussed in this section, including:

1. Expectations of the physician's associate.
2. Types of functions performed by the physician's associate.
3. The relationship of several professional and personal characteristics of nurses.
4. The effect of occupational association between nurses and physician's associates.

#### Nurses' Expectations and Suggestions

General familiarity with the concept of the physician's associate was indicated by all nurses interviewed in this study with their initial introduction to the concept occurring in 1970-1971. Educationally, the majority of nurses in both hospitals believed the physician's associate should have a baccalaureate degree to function effectively. A greater number of nurses in Hospital (P.A.), which employed physician's associates, were found to prefer this baccalaureate degree and also to suggest a masters degree for the associate than did the nurses in Hospital (No P.A.), which had never employed physician's associates. Varying perceptions of the role and functions of the physician's associate could account for this particular difference and other differences.

Actually, length of training for physician's associates was found to vary considerably from program to program, but a large percentage of the nurses who had worked with physician's associates in concurring with the favored degrees suggested that programs should require a preparatory period of at least four years or more.

Concerning the potential manpower categories best suited for physician's associates' training, nearly one-half of all nurses stated that registered nurses were the most qualified. Unsuccessful applicants to medical schools and ex-military corpsmen were second and third choices respectively. This finding probably was related to a slightly prejudiced view by the nurse of her past training and experience. An additional question in this area revealed that few of the nurses in Hospital (P.A.) would be personally interested in a career change, but approximately one-fourth of the nurses in Hospital (No P.A.) were attracted to this new occupation. The slightly older age factor in the former hospital might have contributed to this difference. These data have suggested that several nurses would accept the dependent status of the physician's associate contrary to retaining the independent status advocated by leaders in the nursing profession.

Proper placement of the physician's associate in the hospital setting was another area of inquiry. Although most Hospital (No P.A.) nurses viewed the admitting section of the

hospital as the most appropriate clinical area for the physician's associate, the experience of the nurses in Hospital (P.A.) should mandate priority to their suggestion as most appropriately utilizing the physician's associate on the general medical and surgical wards. In response to an open-ended question soliciting the naming of the least appropriate area, more than one-third of all nurses specified that no area was inappropriate for the physician's associate. Another one-third of the nurses in Hospital (P.A.) indicated that special care units were inappropriate, which could be related to the belief that recent expansion of nursing duties to accommodate these units might be adversely affected. The special care units were named as being inappropriate more often than the operating room, which has been frequently cited in the literature as an area where acceptance of the physician's associate is minimal. A subsequent interview question specifically addressed to the physician's associate's working as first assistant in the operating room revealed that one-fourth of all nurses believed this function to be inappropriate.

Regarding remuneration for the physician's associate, nurses were requested to specify starting and maximum salaries, that they considered proper. These estimated salaries averaged for both hospitals were approximately \$10,000 as a starting salary and \$15,000 as a maximum salary. The median range of starting to maximum salaries was found to be \$11,000-

\$15,000. The suggested starting salaries, only slightly more than the starting salaries for nurses in Veterans Administration Hospitals, were considered low compared to the usual salary commanded by the physician's associate. It was interesting that nurses in Hospital (P.A.), who promoted four years or more of college education for the physician's associate, indicated salary figures comparable to that received by the nurse with less education.

#### Functions of the Physician's Associate

When queried about the relationship of the role of the physician's associate to the nursing role, approximately one-half of all nurses believed the nursing role to be complemented. Another fairly large percentage of nurses in Hospital (P.A.) asserted that there was little or no effect on the nursing role and few saw any competition between roles. A majority of nurses in both hospitals believed that the complexity of nursing tasks was not effected by the physician's associate, but 48 percent of the nurses in Hospital (P.A.) indicated the number of tasks performed by nurses was increased. Several of the respondents revealed that the physician's associate ordered more laboratory tests than a typical physician and often requested additional patient monitoring by nurses.

Some difference of opinion between the hospitals was noted in regard to the physician's associate's performing "total patient care," which is usually considered nursing territory. A large percentage of nurses in Hospital (No P.A.)

agreed with the physician's associate's functioning in this area, which did not appear consistent with previous views of the physician's associate being properly placed in units, such as admitting and outpatient departments. This terminology, "total patient care," might have been somewhat ambiguous for these nurses, who, perhaps, interpreted it to be care of the patient as an individual. A majority of the nurses in Hospital (P.A.) disagreed with the physician's associate's provision of such care. These latter nurses, evidently, viewed the physician's associate as performing non-nursing functions on the general ward with the nursing role either complemented or not effected.

Utilization of the physician's associate in performing various functions, as outlined in a Veterans Administration circular, was examined for acceptability to nurses in the two hospitals. Twelve functions, randomly selected from the thirty-four listed in the circular, were used to gain the relative agreement/disagreement of respondents. Scoring for respondents was accomplished by assigning values of one to five to the possible responses in accordance with the Likert Scale technique. A comparison of the resultant mean values for these two institutions revealed general support for the physician's associate's performing these functions with no difference in agreement being observable.

Results for individual functions demonstrated general concurrence by the nurses with the physician's associate's



performing routine duties, such as making daily rounds to observe and record pertinent progress of patients, and procedures that were performed in an emergency situation, such as managing cardiac arrest patients. However, duties specifically ordered by the physician, including, the performance of paracentesis, lumbar punctures and the placement of indwelling arterial catheters met with less agreement. Evidently, the nurse believed that these latter procedures were too complicated and dangerous for the physician's associate to perform even though ordered by a physician.

#### Relationship of Nurses' Characteristics

Possible relationships of several professional and personal characteristics of nurses to the acceptance of the role of the physician's associate by the nurses were tested for significance by utilization of 2 x 2 Chi Square analyses. Resulting Chi Square values indicated no significant relationship at the .05 level of significance and 1 degree of freedom between acceptance and the following characteristics of nurses:

1. Length of experience.
2. Decade of graduation.
3. Rank in the Nursing Service.
4. Major clinical service affiliation.
5. Professional association membership.
6. Age.

These last two characteristics merit some brief additional comments relative to the Chi Square values calculated. Very small Chi Square values obtained in testing the possible significance of membership in professional nursing associations for both hospitals prompted the conclusion that such memberships did not relate to acceptance. Institutional nurses were apparently not subscribing to several opinions advanced by leaders in the major nursing associations and by those writing in professional nursing journals.

The Chi Square obtained in testing the age variable in one population was a rather large value, although insignificant at the confidence level established. This variable should probably be tested with a larger sample of nurses than this study afforded.

Two null hypotheses were rejected after significance was detected by statistical analyses of the data yielded by Hospital (P.A.) nurses. These null hypotheses were:

Acceptance of the role of the physician's associate by the registered nurse does not relate to her perception of his relative positional status.

Acceptance of the role of the physician's associate by the registered nurse does not relate to her salary grade.

Data suggested that the majority of nurses in both hospitals viewed the physician's associate as having peer organizational status with the registered nurse. Approximately one-third of the nurses presented a view of the asso-

ciate as superior with a smaller number who indicated the associate as subordinate to the registered nurse. These perceptions of the associate's relative positional status were found to significantly correlate with the acceptance of the role of the physician's associate by the nurse. Those nurses expressing superiority for the physician's associate were largely in agreement with the need for the physician's associate. Perhaps these nurses viewed the associate as contributing unique skills and superior knowledge to patient care in the hospital, for which there would be a need.

The second null hypothesis was rejected with the conclusion that acceptance of the physician's associate did relate to the salary grade of the nurse. A partial explanation for this finding might be that nurses in the upper salary levels perceived the physician's associate eventually competing with them for salary and/or might be disturbed that the associate would receive a comparable salary without the years of experience and, perhaps, years of education which they offered.

#### Occupational Association

To examine the effect of occupational association on views, the two populations of nurses were administered twelve attitudinal statements concerning the role of the physician's associate, possible effects on the delivery system, possible effects on professional relations, and patients' acceptance. The responses to these statements were compared to ascertain

if differences in attitude and acceptability did exist between the two study groups. Due to the close similarity of characteristics relating to the hospitals and to the nurses, a basic assumption was that any difference in responses might be partially attributed to the factor of occupational contact between nurses and physician's associates.

Comparisons of responses were performed for each attitudinal statement by noting the agreement, disagreement or indecision to the content of the statement and by examining the mean scores for the intensity of feeling toward the responses.

Results suggested that the majority of nurses have positive attitudes toward this new health profession, but differences of opinion were also evidenced. Each statement received a number of undecided responses from nurses in both hospitals, but this number tended to be higher in Hospital (No P.A.), which was expected due to their lack of contact with employed physician's associates. Some of the indecision expressed by nurses in Hospital (P.A.) might be related to the common tendency of some individuals not to assume positions on issues and to the probability that individual nurses were still evaluating the concept and were not committed to one particular position.

In assessing intensity of feeling, Hospital (No P.A.) nurses had a smaller mean intensity value than did Hospital

(P.A.) nurses. The smaller scores indicated that fewer respondents expressed very strong feelings toward their responses. This would be expected due to these nurses having had no contact with physician's associates and due to the instrument design, which required the respondent to register his intensity of feeling to all responses including undecided ones. Undecided responses occurred more often in Hospital (No P.A.) and individuals tended to indicate less strength of feeling about them.

An overview of the statement content with which a majority of nurses agreed, revealed some commonly held views by the two nursing populations but also some differences. Both hospitals had very similar majority percentages of nurses agreeing:

1. The physician's associate is a much needed assistant to the physician.
2. Money is not better spent on training additional graduate nurses.
3. Patient care is improved with the contributions of physician's associates.
4. The physician's associate does not interfere with the professional relationship between the registered nurse and the medical doctor.
5. The physician's associate is not infringing on the nursing role.

However, approximately one-fourth of Hospital (P.A.) nurses did believe there was interference with the medical doctor-registered nurse professional relationship and one-third who believed money was better spent on training additional gradu-

ate nurses.

Comparison of differences between the majority views, held by the two hospital groups, demonstrated that Hospital (P.A.) nurses indicated more agreement with:

1. The need for physician's associates in the hospital.
2. The willingness of patients to receive care.
3. The patients' having confidence in the abilities of physician's associates.

Hospital (No P.A.) nurses appeared to reflect more agreement with these opinions:

1. The number of physician's associates being educated should not be decreased.
2. The physician's associate is a valuable member of the patient's health care team.
3. Quality of care will not lessen with the utilization of physician's associates.
4. They were more personally accepting of the physician's associate by signifying the associate could render services to their families.

Of these comments, approximately one-third of Hospital (P.A.) nurses indicated the opposite stance that the quality of medicine might lessen and over 40 percent indicated that a physician's associate could not provide services to family members.

With few exceptions, the data revealed that approximately 15-25 percent of the nurses in Hospital (P.A.) registered negative attitudes toward the role of the physician's associate as stimulated by each attitudinal statement. This number suggests that there is a need to examine relationships

in more depth to uncover and moderate points of conflict. The findings of another interview section underscored this need by indicating that 54 percent of the nurses at Hospital (P.A.) stated they had mixed feelings toward this concept with an additional 10 percent having negatively changed their views after working with physician's associates. The remaining one-third of the nurses responded that their views had either remained positive or changed positively toward the concept since first hearing about it.

#### Significance of this Study

Sound implementation of the physician's associate concept dictates careful consideration of several issues by planners, educators, administrators and policy makers. One significant issue is the relationships the physician's associate will experience with other professional groups, particularly registered nurses. Effective utilization of the associate is contingent upon his proper integration into settings where other health professionals are already established.

The literature has disclosed mixed reactions to this creation of a new health provider. Several visualize the physician's associate as a contributing member of the health care team while others have cited possible infringement on the physician-nurse relationship. A few writers assert that nurses are already performing the functions of the physician's associate and/or are the most appropriate group to become

physician's associates. An equally strong argument is that the nursing profession provides unique caring functions independently and should never consider such a dependent role.

This research revealed that although over 50 percent of all nurses expressed mixed feelings or negative attitudes toward the concept, the majority did accept the role of the physician's associate in an institutional setting, with no major differences between hospitals being noted. Acceptance of this role was found to be significantly related to the nurse's salary grade and to her perception of the physician's associate's relative positional status.

Both institutions reflected moderate support for the functions commonly performed by the physician's associate. Greater agreement was expressed with the physician's associate's performing routine duties and emergency procedures than with specialized procedures, such as lumbar punctures. A majority of Hospital (P.A.) nurses recommended that the physician's associate have at least a baccalaureate degree and be utilized on general medical and surgical wards in the hospital. Hopefully, studies of this nature will generate information basic to the ultimate development of acceptable and complementary roles for these professions as we strive to strengthen the health care team.

#### Recommendations for Future Research

This relatively unexplored area of health manpower provides many issues for investigation. As identified by this



study, additional research is needed in the area of interprofessional relations between physician's associates and health workers in community general hospitals. This research should be directed to testing the need for and effectiveness of organizational interventions, such as liaison committees, in-service educational programs, realignment of salaries and restructuring of hospital positions.

Evaluative research of job tasks could additionally provide a meaningful basis for the definition and redefinition of roles which appear to be needed for many allied health professions. Particularly, the respective roles of the nurse, physician's associate, nurse clinician and the nurse practitioner should be clarified to minimize inefficiency and conflicts and to maximize the potential benefits of each.

Regarding training aspects, more research attention should be focused on mechanisms providing for career mobility needed in the health field. The validity of training health workers in teams also needs to be evaluated. Many have asserted that cooperation among the various health disciplines and advancement of the health care team concept could be positive outcomes of this combined training.

Other suitable areas for research include determining the acceptance of physician's associates' services by patients on a national scale. Importantly, the effects of the physician's associate on costs of health care and on the delivery of health services should also be measured.

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APPENDIX A

Registered Nurse Interview Schedule

Section I



REGISTERED NURSE INTERVIEW SCHEDULE

1973

1. Many of my questions are about physician's associates.  
Are you familiar with the PA concept? ☐ Yes ☐ No
2. In what year did you first learn of PAs? \_\_\_\_\_
3. From what source did you first learn about the PA?  
☐ Professional literature ☐ Formal nurses' meeting  
☐ News media ☐ Other nurses informally  
☐ Popular magazines ☐ In-service education  
☐ Personal experience ☐ Physicians  
☐ Your training program ☐ Other \_\_\_\_\_
4. Are you currently working with a PA? ☐ Yes ☐ No
5. Have you ever worked with a PA? ☐ Yes ☐ No
6. Length of any working contact \_\_\_\_\_ months
7. Since first hearing about the PA concept, have your views  
☐ Changed negatively ☐ Stayed positive  
☐ Changed positively ☐ Stayed mixed  
☐ Stayed negative
8. If your views have changed, what was the major influence?  
☐ Working contact ☐ Got use to idea over time  
☐ Read more literature ☐ Other \_\_\_\_\_  
☐ Nurse meetings

As you know, nationally there have been many suggestions regarding requirements of the PA, his position in the hospital, and his salary level. We are very much interested in your thoughts about these areas.

9. Should the PA be: ☐ Male ☐ Female  
☐ This classification is unimportant

10. What level of education do you feel necessary for the PA?  
☐ Certificate from PA program      ☐ Masters Degree  
☐ Associate Degree                      ☐ B.S. Degree
11. Various people have expressed an interest in training to become PAs. Would you please rank the following categories from 1 to 6 in order of their suitability for this occupation, as you see it.
- |   |  |
|---|--|
| <input type="checkbox"/> Applicants to Med. school  | <input type="checkbox"/> Ex-military corpsmen                                  |
| <input type="checkbox"/> LPNs   | <input type="checkbox"/> RNs   |
| <input type="checkbox"/> Those academically qualified but without prior health experience | <input type="checkbox"/> Hospital technicians (Rad.--Med.--nuclear med.--etc.) |
12. In your opinion, where is the most appropriate clinical area of this hospital for the PA? \_\_\_\_\_
13. In your opinion, where is the least appropriate clinical area of this hospital for the PA? \_\_\_\_\_
14. How does the role of the PA relate to the role of the RN? \_\_\_\_\_
15. Do you see the PA's role in relation to the nursing role to be:  
☐ Competing with the nursing role  
☐ Complementing (adding to) the nursing role  
☐ Has little or no effect on the nursing role
16. Do you view the organizational position of the PA in relation to RNs as:  
☐ Superior to RN                      ☐ Peer (equal status) with RN  
☐ Subordinate to RN
17. What effect does (would) the graduate PA have on your work patterns? \_\_\_\_\_
- The number of tasks you perform is (would be)  
☐ Decreased                      ☐ Not effected  
☐ Increased                      ☐ Don't know
- The complexity (difficulty) of your tasks is (would be)  
☐ Decreased                      ☐ Not effected  
☐ Increased                      ☐ Don't know
18. What do you personally consider an appropriate starting salary for the PA? An appropriate maximum salary? (in thousands: S=starting; M=maximum)
- |                               |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> 6-8  | <input type="checkbox"/> 10-12 | <input type="checkbox"/> 14-16 | <input type="checkbox"/> 18-20 |
| <input type="checkbox"/> 8-10 | <input type="checkbox"/> 12-14 | <input type="checkbox"/> 16-18 | <input type="checkbox"/> 20-22 |

**APPENDIX B**

**Registered Nurse Interview Schedule**

**Section II**

Please signify your opinion of each of the following statements by checking (✓) one of these options: Agree, Undecided, Disagree. We would also like to know how strongly you feel about your response. Therefore, for each response please check (✓) one of the following: Very strongly, Fairly strongly, Not so strongly, Not at all strongly. (Please check how strongly you feel even if you have an "undecided" response for an item.)

HOW STRONGLY DO YOU  
FEEL ABOUT THIS?

- |  |   |
|--|---|
| <p>19. The PA is a valuable member of the patient's health care team.</p> <p>( ) Agree</p> <p>( ) Undecided</p> <p>( ) Disagree</p>                                | <p>( ) Very strongly</p> <p>( ) Fairly strongly</p> <p>( ) Not so strongly</p> <p>( ) Not at all strongly</p> |
| <p>20. The PA interferes with the professional relationship between the RN &amp; MD.</p> <p>( ) Agree</p> <p>( ) Undecided</p> <p>( ) Disagree</p>                 | <p>( ) Very strongly</p> <p>( ) Fairly strongly</p> <p>( ) Not so strongly</p> <p>( ) Not at all strongly</p> |
| <p>21. The PA is a much needed assistant for the physician.</p> <p>( ) Agree</p> <p>( ) Undecided</p> <p>( ) Disagree</p>  | <p>( ) Very strongly</p> <p>( ) Fairly strongly</p> <p>( ) Not so strongly</p> <p>( ) Not at all strongly</p> |
| <p>22. The PA is infringing on the nursing role.</p> <p>( ) Agree</p> <p>( ) Undecided</p> <p>( ) Disagree</p>   | <p>( ) Very strongly</p> <p>( ) Fairly strongly</p> <p>( ) Not so strongly</p> <p>( ) Not at all strongly</p> |
| <p>23. The money spent on training PAs could be better spent on training additional graduate nurses.</p> <p>( ) Agree</p> <p>( ) Undecided</p> <p>( ) Disagree</p> | <p>( ) Very strongly</p> <p>( ) Fairly strongly</p> <p>( ) Not so strongly</p> <p>( ) Not at all strongly</p> |

24. Patient care is improved with the contributions of the PA.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
25. We should decrease the number of PAs being educated.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
26. It would be permissible for a PA to render services to my family.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
27. There is a need for PAs in the hospital setting.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
28. Patients are willing to receive medical care by PAs.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
29. The quality of medicine in the U.S. may lessen with the utilization of PAs.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly
30. Patients lack confidence in the abilities of PAs.  
☐ Agree ☐ Very strongly  
☐ Undecided ☐ Fairly strongly  
☐ Disagree ☐ Not so strongly  
☐ Not at all strongly

Various opinions exist concerning the functions that are delegated to the PA. We would appreciate your appraisal of the PA's performing each of the following functions. Please indicate your response to each item by circling one of these choices:

- |  | SA<br>STRONGLY<br>AGREE | A<br>AGREE | U<br>UNDECIDED | D<br>DISAGREE | SD<br>STRONGLY<br>DISAGREE |
|--|-------------------------|------------|----------------|---------------|----------------------------|
| 31. It is not appropriate for PAs to initiate electro-defibrillation in an emergency situation.          | SA                      | A          | U              | D             | SD                         |
| 32. It is appropriate for PAs to manage cardiac arrest patients until attending physician is present.    | SA                      | A          | U              | D             | SD                         |
| 33. It is not appropriate for PAs to perform gastric analyses upon order by physician.                   | SA                      | A          | U              | D             | SD                         |
| 34. It is not appropriate for PAs to order routine medications.  | SA                      | A          | U              | D             | SD                         |
| 35. It is appropriate for PAs to order laboratory tests, x-rays, EKG and similar procedures.             | SA                      | A          | U              | D             | SD                         |
| 36. It is not appropriate for PAs to work as first assistant in the OR.                                  | SA                      | A          | U              | D             | SD                         |
| 37. It is appropriate for PAs to administer I.V. medications upon order of physician.                    | SA                      | A          | U              | D             | SD                         |
| 38. It is not appropriate for PAs to perform wound care and debridement upon order by physician.         | SA                      | A          | U              | D             | SD                         |
| 39. It is appropriate for PAs to perform paracentesis upon order of physician.                           | SA                      | A          | U              | D             | SD                         |
| 40. It is appropriate for PAs to make daily rounds to observe and record pertinent progress of patients. | SA                      | A          | U              | D             | SD                         |

41. It is not appropriate for PAs to place indwelling  
arterial catheters upon order of physician.  
SA A U D SD
42. It is appropriate for PAs to perform lumbar punctures  
upon order of physician.  
SA A U D SD
43. It is appropriate for PAs to provide total patient  
care.  
SA A U D SD
44. It is not appropriate for PAs to pass endo-tracheal  
tubes in an emergency situation.  
SA A U D SD
45. Relationship problems between RNs and PAs in this  
hospital need an organizational solution.  
SA A U D SD
46. With your present knowledge of the PA concept, would  
you consider making a career change to become a PA?  
( ) Yes ( ) No ( ) Undecided

We would like to have some very basic information about you  
for statistical purposes. Would you please respond to the  
following questions:

47. Sex: ( ) Male 48. Marital status: ( ) Single  
( ) Female ( ) Married  
( ) Separated  
( ) Divorced  
( ) Widowed
49. Year of birth \_\_\_\_\_
50. What is your educational background:  
( ) Diploma ( ) Baccalaureate degree  
( ) Associate degree ( ) Masters degree
51. In what year did you graduate \_\_\_\_\_
52. How many years have you been employed as an RN in  
this VA? \_\_\_\_\_
53. How many years have you been employed as an RN? \_\_\_\_\_
54. D M & S Grade \_\_\_\_\_ Step \_\_\_\_\_
55. Are you currently a member of:  
( ) A.N.A.  
( ) N.L.N.  
( ) Neither

56. In view of your experience would you rate your professional relationships with physicians to be:  
☐ Very good      ☐ Good      ☐ Fair      ☐ Poor

Additional Comments (use back if necessary):



APPENDIX C  
Interview Plan

## Interview Plan

Each potential interviewee was notified via memorandum from the Chief of the Nursing Service that a study was being conducted, that participation was entirely voluntary after the investigator's initial orientation, and that an individual time had been scheduled for each person to meet with this investigator.

Nurses working the day shift were requested to come to a room provided for interviewing purposes. Those on the afternoon and evening shifts were typically interviewed in the nurses' station on their own unit. Each interviewee received generally the following verbal prefatory remarks after the author introduced himself:

This study is part of my graduate work at the University of Oklahoma. It seeks to determine your views, as a professional nurse, toward the role of the physician's associate.

At this point, the interviewee was handed a typed definition of "physician's associate" in order to establish a base line and to denote definitely the type of health personnel to be considered. This definition stated:

The physician's associate is a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is then responsible for the performance of that assistant.

The nurse was then informed:

Your assistance in responding to this two-part interview will be greatly appreciated and your comments will contribute much to the accuracy of this study. Confidentiality will be strictly maintained, of course. Our

interest is in the statistical composite picture which will emerge. This interview will involve approximately twenty minutes of your time and with your permission we shall begin.

The author then administered the first section of eighteen questions and recorded the answers personally. After these verbal questions, the respondent was then given the second section of the interview and asked to complete this section directly on the form. Attention was called to the written instructions for responding to this part. Also, it was reiterated that the questions were merely seeking a reflection of her professional and personal thoughts about the role of the physician's associate and that the possible answers were neither right nor wrong.

At the conclusion of this second portion, the nurse was thanked for her cooperation; and the two detached interview sections were recombined by the author for later analyses.