

A Survey of Attitudes of Physicians on Proper Use of Physician's Assistants

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THE medical community recognizes the need for and usefulness of physician's assistants, although some concern has been expressed about the type and kinds of activities that are appropriate for these assistants to perform under a physician's supervision. Physicians have for many years used trained assistants, or paramedical personnel, but the duties of these assistants have traditionally not included direct participation in providing primary health care.

In recent years, programs have been developed for training personnel to support the physician by performing tasks which require his supervision but not necessarily his direct participation (1-6). These programs have

been initiated to extend his services to a larger number of patients.

Impetus for these programs has come from several sources. Physicians engaged in primary medical care have discovered that many of their daily clinical activities do not require the high level of skill and expertise gained in medical school, internship, and specialty programs. Medical educators know many intelligent, capable persons who are not admitted to medical schools but who would like to participate actively in the delivery of medical care.

In turn, medical care consumers often find physicians overburdened and their services difficult or inconvenient to obtain. The combination of these factors has brought about conditions favorable for training and employing assistants who can extend the skills and abilities of the physician for the benefit of himself and his patients.

The kinds of activities these people could or should perform under a physician's supervision were of interest to us, and in this study we established three objectives. The first objective was to obtain information about the

type and characteristics of physicians' practices, their estimate of the need for additional physicians in their community, and the ability of their community to recruit additional physicians. The second objective was to determine the physician's attitude about possible duties for physician's assistants. The third and final objective was to determine the percentage of physicians in the sample who believed it would be practical for them to employ a trained physician's assistant in their medical practice.

The Study

Our study was made between January 10 and March 1, 1971, among physicians practicing or living in the 27-county area of the Susquehanna Valley Regional Medical Program (SVRMP). Names of physicians were obtained from the SVRMP mailing list.

The instrument for data collection was a self-coded questionnaire we designed. The first section of the questionnaire dealt with the first objective of the study. Questions about the physician's practice (solo, group, or

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hospital), his medical specialty, the need for physicians in his community, and the ability of his community to recruit needed physician's assistants were included in this section.

The second section of the questionnaire consisted of 14 statements of possible duties for physician's assistants as shown in the box, which also gives the questionnaire's definition of a physician's assistant. (See p. 470.)

Respondents indicated the appropriateness of duties for the physician's assistant by checking yes, no, and do not know for each statement.

Of 1,997 questionnaires mailed, 637 completed questionnaires were returned (40 percent); 310, or 16 percent, were returned but not completed because physicians had moved from the region; and 61, or 3 percent, were returned because the physicians had retired.

The SVRMP mailing list was later found to include a large number of physicians who had changed their residence during the previous 5 years, and these had not received the questionnaire. Thus, the portion of the physician population who did not respond to the questionnaire because of lack of interest appears to have been relatively small.

The medical specialty and number of respondents follow.

Specialty	Number
Obstetrics-gynecology	33
Pediatrics	33
Radiology	22
Pathology	23
Family practice	228
Internal medicine	80
Orthopedics	18
Surgery	61
Psychiatry	20
Physiatry	4
Other	115
Total	637

Included in the "other" category are members of 14 different specialty groups such as dermatology, ophthalmology, urology, neurology, preventive medicine, and public health. None of these specialty categories contained more than three respondents. Also included in the "other" category were physicians who listed two or more areas of specialty and those who failed to specify a medical specialty.

Results of a chi-square test indicated that respondents did not differ significantly from the total physician population with respect to medical specialty or form of practice (at the 0.10 level of significance).

At the beginning of this study, we felt that the extent to which physicians would regard the medical activities listed as appropriate for a physician's assistant might be affected by variables other than medical specialty. In-

Table 1. Possible duties of physician's assistants, by physician's

Possible duties	Obstetrics-gynecology		Pediatrics		Radiology		Pathology		Family practitioner		Internal medicine		Orthopedics		Surgery	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Take a routine medical history....	88	9	91	9	82	9	87	4	82	14	74	24	83	17	84
Perform preliminary physical examinations.....	46	49	52	36	59	27	48	44	41	43	60	36	50	33	48	42
Emergency room procedures.....	52	30	64	24	46	41	70	17	60	30	76	13	78	17	62	30
On an emergency basis and until the physician arrives, support vital functions.....	84	9	79	15	86	5	96	0	84	9	89	4	100	0	85	8
Operate certain diagnostic and therapeutic instruments.....	88	0	85	3	82	5	96	0	90	7	90	6	89	11	82	8
Carry out certain laboratory examinations.....	100	0	91	9	86	0	78	13	97	1	93	5	83	11	93	3
Identify and order appropriate laboratory and radiological studies.....	27	58	18	64	23	55	39	52	31	55	30	59	44	38	33	47
Perform diagnostic activities.....	97	3	85	12	82	5	100	0	90	7	86	9	89	5	87	8
Conduct well-baby checkups, including injections.....	46	36	39	36	36	50	61	26	49	44	48	30	39	39	36	38
Cast application and removal.....	27	52	39	32	73	18	70	17	54	34	48	30	72	28	48	41
Prescribe therapeutic regimen under physician's supervision...	39	49	49	46	18	50	35	57	42	47	35	53	44	39	47	47
Monitor health status of chronically ill or postoperative patients through visits.....	61	18	70	21	55	22	70	21	73	21	76	13	72	11	69	18
Routine prenatal checkups.....	67	24	52	24	46	27	48	26	61	34	53	26	39	33	56	21
Uncomplicated or emergency activities.....	56	28	33	22	23	54	48	30	44	46	43	37	33	47	38	39

trinsic characteristics of a respondent's practice and the availability of physicians in respondents' communities were viewed as variables which could affect identification of medical activities as appropriate or inappropriate for the physician's assistant.

Kind of community from which a physician's patients originate, his ability to accept new patients, ability of the community to recruit needed physicians, and a physician's feelings about the practicality of a physician's assistant for his own practice were viewed as possible intervening variables. To investigate these variables, we made a number of comparisons of data supplied by respondents.

Results

Possible duties. The majority of respondents indicated most of the possible duties listed on the questionnaire were appropriate for a physician's assistant (table

specialty, in percents

Psychiatry		Other		Total	
Yes	No	Yes	No	Yes	No
75	10	84	14	82	14
35	40	49	43	50	41
55	20	52	32	60	27
75	10	78	11	84	8
60	10	85	7	87	6
90	0	96	1	94	3
30	55	28	56	31	55
75	5	90	4	89	7
30	45	46	34	45	39
20	50	47	33	50	34
30	50	44	46	41	48
60	10	66	24	70	20
35	45	45	37	54	31
20	58	40	39	41	40

Table 2. Estimates of present and future needs for physicians

Estimated number	Needed		Community can recruit	
	Number	Percent	Number	Percent
None.....	121	19	243	38
1-4.....	268	42	261	41
5-9.....	127	20	76	12
10 or more.....	121	19	57	9

1). Only one category of duties was identified by 56 percent of the physicians as being inappropriate for the physician's assistant. This category was "identifying and ordering laboratory and radiologic studies."

A large portion, 48 percent, of the respondents also indicated "prescribing a therapeutic regimen under a physician's supervision" was inappropriate.

Relatively few physicians believed that taking a routine medical history, supporting vital functions in the absence of a physician, operating diagnostic and therapeutic instruments, carrying out laboratory examinations, performing diagnostic activities, and monitoring the health status of the chronically ill or postoperative patient were inappropriate duties for the physician's assistant.

Responses to the questionnaire indicated considerable differences of opinion among physicians of the various specialty groups regarding the performance of certain duties by the physician's assistant. Indecision as to the appropriateness of these activities for the physician's assistant existed, but in only one category did the percentage of undecided physicians exceed 15 percent. Respondents seemed quite certain in their judgments of the activities appropriate for the physician's assistant.

Physicians' practice and manpower needs. Solo practice was the dominant form of practice of

responding physicians (56.4 percent). Twenty-five percent were participating in group practice, and 18 percent conducted their practice in a hospital or other setting. More than 92 percent of all respondents stated that one-half or more of their professional activities included patient care, and nearly 82 percent stated they were able to accept new patients.

Thirteen percent of those responding indicated they would retire from medical practice within the next 5 years, and 81 percent believed additional physicians were needed in their community (table 2). However, 38 percent indicated additional physicians could not be recruited to their community, based on past experience. More than 39 percent stated that the immediate needs of their community required five or more physicians, but only 20 percent believed these numbers could be recruited. The total responses indicated the need for additional physicians is much greater than the supply.

Based on the data obtained we hypothesized that, with few exceptions, the more closely a particular activity is associated with an area of medical specialty, the more likely members of that specialty group will feel that the activity is appropriate for a physician's assistant. This hypothesis excludes, of course, those activities which require a decision as to the diagnosis of the illness or the proper course of treatment.

Definition of Physician's Assistant and Possible Duties

The physician's assistant is one who has had some formal academic training beyond the high school level, has received professional training for some area of the health field, and has had at least 1 year of experience involving extensive direct patient contact. In addition, the physician's assistant has completed formal training through a recognized program designed to prepare him or her to assist the physician.

Duties of the physician's assistant are tailored to the physician's pattern of performance. He or she can, under supervision and direction of the physician, perform routine and time-consuming functions which allow the physician to concentrate to a greater extent on patient care activities requiring a high level of knowledge and skill.

POSSIBLE DUTIES

1. Take a routine medical history
2. Perform preliminary physical examinations
3. Emergency room procedures (suture lacerations, extracting superficial foreign bodies, changing routine dressings, measurement of venous pressure)
4. On an emergency basis and until the physician arrives, support vital functions, including cardiopulmonary resuscitation, inhalation therapy, administer intravenous fluids
5. Operate certain diagnostic and therapeutic instruments such as electrocardiographs, respirators, cardiac monitors, and defibrillators
6. Carry out certain laboratory examinations
7. Identify the needs for appropriate laboratory and radiological studies and ordering such studies
8. Perform diagnostic activities, i.e., EKG, pulmonary function tests, audio and visual test, maintenance of patient medical records
9. Conduct well-baby checkups, including injections
10. Cast application and removal
11. Prescribe therapeutic regimen under physician's supervision
12. Monitor health status of chronically ill or postoperative patients through visits to hospitals, home, or nursing facility
13. Routing prenatal checkups
14. Uncomplicated or emergency deliveries

Practitioners of nearly every medical specialty require a routine medical history. And, a majority of every specialty group identified the taking of medical histories as an appropriate duty for the physician's assistant. Internists, who generally require a more detailed history, were the most conservative in this area. However, internists were most favorable to the physician's assistant's performing preliminary physical examinations, an activity highly associated with their own area of specialty. Pediatricians, family physicians, internists, orthopedists, and surgeons, all of whom are likely to be called in the event of a minor injury, were most favorable toward physician's assistants performing minor emergency room procedures.

A large majority of all physicians favored the physician's assistants supporting vital functions

in the absence of a physician. At least as large a portion were favorable toward their operating certain diagnostic and therapeutic instruments, performance of diagnostic activities, and maintenance of medical records. Technicians have been trained for many of these duties, and few physicians feel they are inappropriate for the physician's assistant.

Removing and applying casts are activities more closely identified with the orthopedist than with any other specialty group. And, a greater portion of orthopedists than any other specialty group, excepting radiologists, believed these activities were appropriate for the assistant. Similarly, monitoring the health status of chronically ill or postoperative patients by visiting the home, hospital, or nursing facility were activities most often associated with the pediatrician, family

physician, internist, and surgeon. Respondents in these specialty groups identified those activities as appropriate for physician's assistants in greater proportion than did members of other specialty groups.

No medical specialty is as closely identified with routine prenatal checkups and uncomplicated or emergency deliveries as are obstetrician-gynecologists. Yet members of this specialty group, more than any other, identified these activities as appropriate for the assistant.

These and other examples cited indicate considerable support for hypothesizing that the closer the identification of a specialty group with a particular activity, the more likely its members will indicate that activity as appropriate for a physician's assistant.

There are exceptions, however. Pathologists are most closely identified with carrying out cer-

tain laboratory examinations. From our data, however, members of this specialty group would seem least likely to delegate this activity to the physician's assistant. Similarly, pediatricians would seem less likely to delegate well-baby checkups to the physician's assistant than would pathologists, family practitioners, internists, and others.

We noted, however, that psychiatrists, who use fewer paramedical persons than do any of the other specialty groups, were the most conservative in their assessment of the appropriateness of duties for the physician's assistant.

Discussion

To analyze the effects of variables other than the physician's specialty, we made four comparisons. First, we compared responses of physicians whose patients originated primarily from the outer suburbs of the city and those whose patients were from rural areas, small towns, or the inner city.

A second comparison was between responses of physicians who were able to accept new patients and those who were not.

The third comparison related to responses of physicians whose communities could recruit needed physicians and those whose communities could not.

A final comparison was between assessments of the appropriateness of possible duties of physician's assistants by physicians who felt it would be practical to employ such a person in their practice and those who did not feel it would be practical.

A chi-square test was used to determine the statistical significance of differences in each of these comparisons.

In none of these comparisons

were statistically significant differences noted in physicians' assessments of appropriate duties for a physician's assistant. Physicians' responses to the questionnaire were not affected significantly by geographic origin of their patients, inability to accept new patients, inability of the community to recruit needed physicians, or present use of an assistant. In addition, no statistically significant differences were noted in assessments of possible duties of the physician's assistant by physicians who did and those who did not feel it practical to employ such a person.

It cannot be said from these results that the physicians' statements about the appropriateness of possible duties for physician's assistants were influenced by factors affecting the burden of their practice, or by their statements as to the practicality of such a person for their own practice. In this respect, physicians' responses were objective, based on factors consistent with the provision of quality health care.

Conclusions

Results of this study show that the needs of many communities for physicians exceed their ability to recruit them. The results also indicate considerable support among physicians for trained assistants.

Of the 637 respondents 350, or 55 percent, presently employ someone who performs one or more possible duties of a physician's assistant, although the person lacks formal training as a physician's assistant. Each of these physicians believed it would be practical for them to employ a trained physician's assistant. Of the 287 physicians not presently employing someone who

performs some of the duties of a trained physician's assistant 99, or 34 percent, believed it would be practical for them to employ such a person. Thus, 449, or 70 percent, stated it would be practical for them to employ a trained physician's assistant in their medical practice.

Although a shortage of manpower, inability to accept new patients, or other external variables may influence physicians' desires to employ a trained assistant, these factors had no statistically significant effect on their assessments of the appropriateness of medical duties for physician's assistants. Activities judged most appropriate were those associated with gathering diagnostic information and carrying out an established therapeutic regimen. Only for the task of identifying and ordering laboratory or radiological tests did more than 50 percent of all physicians consider an activity inappropriate for a physician's assistant.

Physicians apparently feel the actual decision-making power regarding medical diagnosis and the prescription of a therapeutic regimen are activities which should be least readily delegated to an assistant. These results are consistent with the definition of the physician's assistant and with the aims and purposes of existing programs for training these persons.

Activities tended to be judged appropriate for a physician's assistant to a greater extent by physicians whose specialty is closely associated with the activity than by those whose specialty is not. Although this statement is not a hard and fast rule, we believe that there was an identifiable pattern among physicians' responses. It appeared that the physicians most often associated with a routine activity were more

likely than others to identify that activity as one for which assistants could be trained.

This discovery plus the variance in responses noted between physicians in various specialty groups may indicate a belief among physicians that assistants could be most appropriately trained to function within a given area of specialty practice.

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Questionnaires were sent to nearly 2,000 physicians in 27 central Pennsylvania counties to determine their attitudes about the appropriateness of a list of duties for a physician's assistant. They were asked also about the practicality of employing such a person in their medical practice.

Analyzed were the extent to which the physicians' attitudes might be affected by their medical specialty, form of practice, and the need for physicians in the respondents' communities. Although only 40 percent of the mailed questionnaires were returned, it was believed that the respondents were representative of the total physician population with respect to specialty and form of medical practice.

Four major findings emerged from this survey:

1. A number of clinically related activities were regarded by a majority of physicians as appropriate duties for a trained physician's assistant.

2. Activities involving the formulation of a diagnosis or prescription of a course of treatment were considered least appropriate for the trained assistant. Activities of a more routine nature were

considered most appropriate.

3. In general, physicians were most likely to consider a particular activity as appropriate for a trained physician's assistant when that activity was closely associated with their own medical specialty.

4. Regardless of specialty, form of medical practice, or need for physicians in their communities, most physicians indicated it would be practical for them to employ a trained physician's assistant.

Results of this survey demonstrated a considerable degree of acceptance of the trained physician's assistant among physicians, regardless of their specialty, form of practice, or perceived need for additional physicians in their community. The majority of physicians indicated there were limits to the kinds of duties these persons should perform. Responses of these physicians suggested, however, that a wide variety of activities were appropriate for the physician's assistant, making this person a valuable member of the medical care team.