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Patient Attitudes Toward Physician's Assistants

HAROLD K. STRUNK, MSW, MPH, DR PH, *Oakland*

A study was conducted in urban Los Angeles to assess patient acceptance of the use of physician's assistants. Data collection was facilitated by the development of an attitude scale and responses were analyzed to determine differences between various socioeconomic stratifications. With a few exceptions, acceptance was highest among non-married middle-class respondents who have had some exposure to college. As to the perceived complexity of procedures a physician's assistant might perform, 91 percent of all respondents would not object to injections administered by a physician's assistant, but this tolerance diminishes to 34 percent in the case of first examination of a patient by a physician's assistant if there appeared to be a serious head injury.

THE RECENT ARRIVAL of the physician's assistant on the medical scene has produced a concern about his acceptance by the public, but there remains a paucity of empirical data. While the number of practicing physician's assistants is relatively small, there are at least 22 operational programs in the United States striving to meet perceived paramedical manpower needs. Training aims and guidelines are established by the medical com-

munity to produce a new type of worker to bolster the ranks of medical personnel in the delivery of health care. It is to be hoped that such a worker will be acceptable to the patient—but much of this planning has been done with little patient input into the problem. Besides acceptance by other members of the health team, the question of patient acceptance of the physician's assistant obviously is an important one.

Estes and Howard¹ expressed the opinion there is little doubt that physician's assistants will be accepted by patients and that they can effectively

The author is the Assistant Chief of the Division of Adult and Child Health, Alameda County Health Care Services Agency.

Reprint requests to: H. K. Strunk, DR PH, Division of Adult and Child Health, Alameda County Health Care Services Agency, 499 - 5th St., Oakland, Ca. 94607.

extend the ability of the physician and allow him to see more patients. In addition, the physician's assistant is viewed as a possible means of reducing health care costs.

Kadish and Long² expressed belief that quality of care will be a major factor in the acceptance of physician's assistants. Of all the reasons for resistance, the question of quality is perhaps the one of most controversy. Preliminary acceptance on the part of the patient may be achieved by the implied acceptance of the assistant by the physician who employs him but, following that, the physician's assistant will be judged on his own merit.

Litman³ sampled 253 households in Minnesota and Iowa to assess the potential willingness of rural residents to permit specially trained former medical corpsmen to provide various medical services under the supervision of a physician. Of the study population only 14 respondents lacked a regular family physician and 80 percent lived within 19 minutes of his office. He found 65.6 percent were willing to allow such trained assistants to care for their families, provided they were supervised by a licensed medical practitioner. However, 16 percent maintained that they would not. Acceptance was often based on the personal endorsement of the local family physician. The investigator inserted one very important word of caution: Any notion that such paramedical personnel are likely to be unequivocally accepted by the rural public seriously underestimates the latent resistance to be overcome.

The Litman study portends the need for information gathered from urban residents. The resistance among rural residents may also exist in the city. It would seem that public acceptance of the physician's assistant may well be contingent on the effectiveness of health education and the level of information possessed by the consumer.

Unlike rural areas faced with shortages of physicians, large urban areas do not manifest the same problem—with the possible exception of the decaying central city. Generally speaking, however, the city dweller has much more access to a wide range of medical services than does his rural counterpart. With need less evident, many urban areas—Los Angeles, for example—are unfamiliar with physician's assistants. In California, approval for physician's assistants training programs only recently has been given and the general public will not likely encounter a physician's assistant for some time to come. It is of further interest that

television viewers currently are being exposed to a series dealing with the exploits of Los Angeles City Firemen trained as paramedics. Otherwise, there are pilot programs in the city which are using nurse midwives and nurse practitioners, but these have received little publicity.

Aims of the Study

A review of the literature reveals numerous gaps in our knowledge of the acceptability of the physician's assistant to the public. The best models of medical efficiency indicate that physician's assistants would be effective in triage and screening, performing non-complex procedures, and reserving only the most serious cases and disorders for the physician's unique skills. As yet, we do not know what the public's reaction might be to being screened out, thus not being judged a case to be called to the doctor's attention.

Another unexplored area of inquiry is the limits to treatment—that is, the degree of complexity—which the public would place on the practice of physician's assistants. From a training standpoint there are procedures for which physician's assistants may be well equipped and capable of performing, but an unanswered question is what the public will view as the limits of his competence.

A further aim of the study was to attempt to measure the attitudes of patients in relation to acceptance *vis-à-vis* socioeconomic stratification, and to determine whether a saving in time or money might be a condition of acceptance.

Method of Study

A 30-item attitude scale was developed, pre-tested and administered to 300 patients waiting for treatment at the UCLA Hospital Outpatient Clinic. Personal pronouns were used as much as possible in the questionnaire and situations were created with which the respondent might identify. It was hoped that administering the inquiry in a clinic's waiting room where a modicum of stress is present might contribute to the reliability of the responses. A Likert-type scale was used which permits respondents to reply on a continuum of "strongly agree" to "strongly disagree" with each statement. Statements were randomly ordered, weighted, and structured in such a way that agreement with some items and disagreement with others was favorable to the use of physician's assistants.

All patients presenting themselves to the UCLA Hospital Outpatient Clinic between the peak hours

TABLE 1.—Frequency Distribution of Responses to Questions about Physician's Assistants

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Un-decided</i>	<i>Dis-agree</i>	<i>Strongly Disagree</i>
1. Physician's assistants are OK for taking temperatures and weights, but my doctor should do all the rest	(1)* 18.0†	(2) 31.3	(3) 9.3	(4) 33.7	(5) 7.7
2. The best way to improve the Nation's health is to train more doctors	(1) 39.7	(2) 29.0	(3) 5.7	(4) 20.0	(5) 5.7
3. When I'm sick or injured, I don't want anyone to treat me who has less than an MD degree	(1) 27.7	(2) 23.7	(3) 11.3	(4) 30.7	(5) 6.7
4. A physician's assistant can do most of the things a doctor can do	(5) 3.0	(4) 30.7	(3) 23.7	(2) 35.0	(1) 7.7
5. Most children's diseases could be treated by a physician's assistant	(5) 3.7	(4) 22.7	(3) 12.7	(2) 47.0	(1) 14.0
6. Physician's assistants would probably be useful only in ghettos or rural areas where they can't get doctors	(1) 2.7	(2) 15.0	(3) 8.0	(4) 51.3	(5) 23.0
7. The physician's assistant should be able to write and sign prescriptions for me	(5) 3.7	(4) 24.7	(3) 13.0	(2) 42.3	(1) 16.3
8. A physician's assistant could be used to screen patients to determine who actually should see the doctor	(5) 7.7	(4) 51.3	(3) 11.3	(2) 23.0	(1) 6.7
9. My doctor should allow his physician's assistant to treat whatever he can safely treat	(5) 16.0	(4) 64.3	(3) 9.3	(2) 6.7	(1) 3.7
10. Physician's assistants are OK for giving first-aid, but I still want to see the doctor when I come in to his office or clinic	(1) 21.0	(2) 46.0	(3) 14.3	(4) 17.7	(5) 1.0
11. The physician's assistant who used to be a military corpsman would probably be able to run a hospital emergency room without a doctor being there	(5) 4.0	(4) 22.3	(3) 18.0	(2) 41.3	(1) 14.3
12. Only the most serious cases should reach the attention of the doctor	(5) 6.3	(4) 16.7	(3) 7.0	(2) 54.0	(1) 16.0
13. I would be willing to accept the judgement of a physician's assistant on whether I should be seen by the physician	(5) 4.0	(4) 31.0	(3) 22.7	(2) 31.0	(1) 11.3
14. I wouldn't mind if my doctor had the physician's assistant give me an injection	(5) 21.0	(4) 70.0	(3) 5.3	(2) 2.3	(1) 1.3
15. If the physician's assistant treats me, it should cost me less money	(1) 11.3	(2) 36.0	(3) 25.7	(4) 24.0	(5) 3.0
16. Medical histories of an illness should only be taken by the physician who is going to treat me	(1) 12.7	(2) 27.0	(3) 9.3	(4) 44.7	(5) 6.3
17. I would be willing to see the physician's assistant if it would save me time	(5) 6.0	(4) 28.3	(3) 17.7	(2) 41.3	(1) 6.7
18. If a corpsman is good enough for our boys in Vietnam, he's good enough for me	(5) 6.3	(4) 25.3	(3) 24.3	(2) 36.7	(1) 7.3
19. Ex-military corpsmen should be willing to work as hospital orderlies unless they earn their MD degree	(1) 5.0	(2) 31.3	(3) 26.3	(4) 31.0	(5) 6.3
20. If I had some very personal problems bothering me, I would be willing to discuss them with my physician's assistant	(5) 4.7	(4) 34.3	(3) 16.3	(2) 34.7	(1) 10.0
21. Doctors should be the only ones allowed to sew up my cuts or wounds	(1) 14.7	(2) 29.7	(3) 10.3	(4) 38.3	(5) 7.0
22. If a physician's assistant, who used to be a military corpsman, could take care of my case according to my doctor, that would be OK with me ...	(5) 9.7	(4) 63.0	(3) 12.3	(2) 13.7	(1) 1.3
23. If I had a broken arm, it would be OK for the physician's assistant to set it	(5) 7.0	(4) 39.3	(3) 16.7	(2) 29.3	(1) 7.7
24. Doctors should delegate as much work as possible to the physician's assistant	(5) 6.7	(4) 46.0	(3) 21.3	(2) 23.0	(1) 3.0
25. Physicians spend too much time doing things that someone else could probably do	(5) 12.3	(4) 46.0	(3) 19.0	(2) 20.3	(1) 2.3
26. A physician's assistant should be able to take care of most conditions that doctors now are spending their time on	(5) 6.0	(4) 38.0	(3) 25.7	(2) 26.7	(1) 3.7
27. If I had fallen from a ladder and was bleeding from the nose and ears, it would be OK if the physician's assistant first examined me to see if I should be seen by the doctor	(5) 3.7	(4) 31.0	(3) 7.0	(2) 37.0	(1) 21.3
28. I would be willing to be treated by the physician's assistant if I felt that he knew what he was doing	(5) 11.0	(4) 59.3	(3) 11.7	(2) 17.0	(1) 1.0
29. The way to improve the Nation's health is to train more physician's assistants	(5) 20.0	(4) 47.3	(3) 16.7	(2) 12.7	(1) 3.3
30. If I were suffering from severe internal pain, I would not mind if the physician's assistant examined me first to see if he could give me what I needed	(5) 7.3	(4) 31.0	(3) 15.7	(2) 30.0	(1) 16.0

*1-5 represents assigned weights: 1, unfavorable attitude to 5, most favorable attitude.

†Figures expressed in percents, N=300.

of 9 and 10 a.m. on successive days were asked to participate in the survey. Each was approached by the researcher who explained that he was from the School of Public Health and conducting a study of innovative uses of medical manpower in which public opinion was needed. Anonymity was assured and each respondent was asked to read the first sheet of the questionnaire (which explained the physician's assistant concept and gave instructions for completing the questionnaire) and then to mark their responses. As they were completed they were collected by the researcher.

Results

Table 1 presents the responses of 300 patients to the attitude scale.

Sixty-two percent of the respondents were female and while means for their responses were significantly higher (that is, more accepting) on items 4, 7, 11, 18, 27 and 29, there was no statistical significance overall ($p < .05$).

Table 2 provides a breakdown by racial-ethnic origin among the sample. There was no significant difference ($p < .05$) in acceptance of the physician's assistant between the sub-groups. However, the means are presented for comparison.

An analysis of variance points to significant

differences in the attitudes of acceptance when stratified by educational attainment (refer to Table 3). A rank ordering of means provides a ready comparison, but a word of caution is in order for the acceptance level indicated for respondents having less than seven years of education. The number of respondents was very small and, of the five, four were females. While there are no statistically significant differences in attitudes of acceptance between males and females, females consistently were more accepting. Acceptance also was consistently higher among those respondents who had had some exposure to college.

Acceptance by social position—social class—is significantly different. The Hollingshead Two Factor Index of Social Position⁴ provides a measure to establish social position by the correlation of education and occupation. On the scale of 1 = highest class, and 5 = lowest class, the greatest acceptance was found to be in classes 2 and 3, or what would best be termed middle-class respondents. An analysis of variance of acceptance by social class is presented in Table 4.

Last, acceptance by marital status was significantly different. Non-married respondents were more accepting than married (or widowed) respondents. A rank ordering of acceptance may be seen in Table 5.

As Tables 3, 4 and 5 indicate, the greatest acceptance of the physician's assistant was found among non-marrieds and middle-class respondents who had had some exposure to college. It is persons of this group who most clearly see the role of the physician's assistant and the contribution he can make to the health team.

Responses to one of the attitude scale statements (Table 1) indicated that 67 percent of all respondents agreed that the way to improve the nation's health is to train more physician's assistants, which is a sharp contrast to the 41 percent in the first statement who believed that a physi-

TABLE 2.—Distribution and Acceptance by Ethnic Origin

	Num- ber	Per- cent	Mean
American Indian	6	2.0	91.7†
Black	32	10.7	89.6
Caucasian	212	70.7	91.5
Mexican/American	28	9.3	88.5
Oriental	10	3.3	83.4
Other*	12	4.0	86.9
Total	300	100.0	90.6‡

*e.g., East Indian, Filipino, Indonesian, Samoan.

†As 90.0 is the midpoint of all possible responses, scores below would suggest unfavorable attitudes, while scores above would suggest favorable attitudes.

‡Mean for 300 respondents.

TABLE 3.—Analysis of Variance—Acceptance by Educational Attainment

	Number	Mean	Std. Dev.	Maxi- mum	Mini- mum	Rank Order
Graduate professional training	13	89.6	20.8	126.0*	59.0	4
University graduate	36	93.4	17.7	145.0	67.0	3
Partial college (one year or more)	69	95.2	17.8	138.0	51.0	2
High school graduate	129	88.8	15.5	127.0	43.0	5
Partial high school (grade 10 or more)	36	87.9	15.1	121.0	50.0	6
Junior high school graduate	12	80.1	10.7	96.0	60.0	7
Less than 7 years of school	5	100.6	19.2	124.0	72.0	1

F = 2.63 6 d.f. (F._{.95} = 2.10)

Possible range for total scores on 30 items = 30-150; 30 = unfavorable attitude, 150 = maximum favorable attitude.

TABLE 4.—Analysis of Variance—Acceptance by Social Class*

Class	Number	Mean	Std. Dev.	Maximum	Minimum	Rank Order
1†	10	90.8	25.5	145.0‡	59.0	3
2	32	95.7	13.2	117.0	69.0	1
3	84	93.8	17.5	138.0	53.0	2
4	134	87.9	16.4	127.0	43.0	5
5	40	88.9	14.5	124.0	50.0	4
F=2.60		4 d.f.		(F. _{.95} =2.37)		

*As suggested by Hollingshead.
 †Class 1 is the highest class.
 ‡Possible range for total scores on 30 items=30-150; 30=unfavorable attitude, 150=maximum favorable attitude.

TABLE 5.—Analysis of Variance—Acceptance by Marital Status

	Number	Mean	Std. Dev.	Maximum	Minimum	Rank Order
Married	169	89.8	16.8	145.0	43.0	4
Widowed	11	76.8	11.2	98.0	65.0	5
Separated	13	93.8	13.1	111.0	72.0	1
Divorced	42	93.7	20.1	138.0	51.0	2
Single	65	92.5	14.1	121.0	63.0	3
F=2.72		4 d.f.		(F. _{.95} =2.37)		

cian's assistant should be capable of doing something more than taking temperatures and weights. This phenomenon which is occurring might be termed "intratest learning" and is best illustrated by one patient's case. For background, the patient is a divorced Caucasian 41-year-old man, a high school graduate, employed as an aircraft maintenance man. A mean calculated for his first ten responses is 3.40; for the second ten responses, 3.40; third ten responses, 4.90 (on a scale of one to five). The indication here is that he shifted his attitude as he went, becoming more favorably

disposed as the test progressed. This study is not designed to support the significance of this occurrence, but there is considerable evidence that this is not unusual.

Comment

The findings of this study indicate there are significant differences in acceptance of the physician's assistant which may be attributed to socioeconomic variables. This, in itself, is not surprising. Socioeconomic variables have a great deal to do with acceptance and choice in much of what we do on a daily basis. The important question that this study raises is whether people become more accepting as the level of information is increased. A glance at statement No. 28 on the attitude scale responses points to the willingness of two-thirds of the respondents to be treated by a physician's assistant *if they felt he knew what he was doing*. The implication is clear and the need now is to determine whether this is true, and, if so, what are the most productive means to bring about this end. The data generated by this study suggest that many people are ready for the appearance of the physician's assistant. The most pressing concern now seems to be how to inform and educate the public to prepare the remainder for his arrival.

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