Influence of Postpartum Home Visits on Postpartum Clinic Attendance

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A KEY ISSUE in current discussions of improved health delivery systems is the effective use of new health manpower. While the indigenous paraprofessional worker has recently emerged as an important component in the delivery of a variety of health services, it has become apparent to a number of observers that extensive research is still needed into the ways in which this new and valuable resource might be most effectively committed (*1–8*). Closely associated with this issue is the need to provide new health workers with opportunities for career development so that they may realize their full potential while achieving a program's goals.

Thus, it is necessary to identify and explore service areas in which new health manpower might be engaged, to provide the training necessary for delivering the services, and to evaluate the effectiveness of such manpower utilization. The study reported here is addressed to these issues. Specifically, the study focused on the effectiveness of a paraprofessional, the family health counselor, in making postpartum home visits for the Louisiana Family Planning Program.

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Setting

Within the Louisiana Family Planning Program, operated by the Family Health Foundation, the paraprofessional position of family health counselor, originally titled auxiliary health worker, has been systematically upgraded through the gradual addition of new tasks needed to provide the services required for achieving the program's goals. Planning has assured that each new task is compatible with the worker's base of existing tasks, enabling her to take maximum advantage of her previous training and experience while extending the scope of her performance.

Initially, the family health counselor's role consisted of recruitment of patients for family planning services (outreach home visits) and maintenance of patients (followup home visits). Successful extension of this role into various "special assignments" (such as followup of patients in need of repeat Papanicolaou tests) demonstrated the ability of the worker to deal with patients having severe and sensitive health problems and to promote fuller use of health

services among the indigent population. Somewhat later, the role was broadened to encompass teaching the initial family planning class in reproductive physiology and contraceptive methods, thereby further developing the worker's abilities in educating patients.

Pilot Study

A pilot study was designed to test further expansion of the family health counselor role to include visiting postpartum women at home after their discharge from Charity Hospital in New Orleans, where approximately 95 percent of the city's indigent women are delivered.

The goals of the postpartum home visit were to encourage clinic attendance for postpartum examination and to educate and encourage the mother toward helping her to return to a healthy pre-pregnant state and to have a healthy baby.

An evaluation of manpower utilization for postpartum home visits centered on the following objectives: (*a*) to examine the effectiveness of the visit in influencing clinic attendance for postpartum examination and (*b*) to identify services needed by the women visited and to specify the types of services the family health counselors can provide in relation to these needs.

The outcome of evaluation with respect to the first objective—the influence of home visits on subsequent clinic attendance—is the focus of this paper. A comparison was made of the percentages of kept appointments among three groups of postpartum women in order to test the following two hypotheses:

1. Women who are visited and encouraged to keep their postpartum appointments will keep their appointments at a higher rate than women who are not visited.
2. Women who are visited and given information on basic child care and care of themselves in addition to encouragement to keep the postpartum appointment will keep their appointments at a higher rate than women who are visited but only encouraged to keep their appointments.

Method

According to established program practice, each woman delivering at Charity Hospital in New Orleans is contacted on the maternity wards when 1 to 2 days postpartum by a representative of the Louisiana Family Planning Program. The representative offers each woman an appointment for a postpartum examination at one of the program's clinics 4 to 5 weeks after delivery, explains briefly the concepts of family planning, and describes the services available at the clinics.

The sample. The sample for this study consisted of 1,800 medically indigent residents of Orleans Parish who delivered at Charity Hospital between May and September 1971. Each woman was con-

tacted on the maternity ward and given an appointment for a postpartum examination at one of the Louisiana Family Planning Program clinics.

The sample members were then randomly assigned to one of three groups consisting of 600 women each, as follows:

Group 1—women who were visited at home and given information on child care and self-care, as well as encouragement to keep the postpartum appointment.

Group 2—women who were visited at home but only for the purpose of encouraging them to attend the clinic for postpartum examination.

Control group—women who were not visited at home.

The three study groups were compared for differences in terms of patient variables which might affect the appointment outcome. Chi-square tests revealed no significant differences among the groups in the distribution of sociodemographic variables which might be associated with clinic attendance. These variables included the patient's age, race, marital status, religious affiliation, education, number of pregnancies, previous contraceptive usage, and previous attendance at a Louisiana Family Planning Program clinic.

Ninety-two percent of the sample members were black; their mean age was 23.1 years; they had completed an average of 10.4 years of schooling; and they had experienced a mean of 2.9 pregnancies at the time of the study.

The home visitors. In preparation for conducting postpartum home visits of the type provided to women in group 1, six family counselors (selected on the basis of competence in overall job performance and skill in interviewing) participated in a 3-week training program developed by a multidisciplinary team representing various departments within the Louisiana Family Planning Program. The training program consisted of lectures, demonstrations, group discussions, and role-playing situations centered around the major topics of the postpartum home visit. The topics included health of the newborn, health of the mother, assessment of the health-related aspects of the home environment affecting the immediate well-being of the mother and infant, and information on care of the infant.

The interview schedule was designed to insure that every home visit of this type included certain basic content areas covered in the training curriculum and provided data needed for evaluative purposes. The interviews averaged 58 minutes each.

To conduct the second type of home visit, for encouragement to keep the postpartum appointment, six family health counselors were selected whose level of past performance (in terms of percentage of kept appointments out of total given) on home visit assignments matched the records of the family health counselors visiting women in group 1. These counselors participated in a 3-day training program designed to acquaint them with the interview form to be used and to review their interviewing procedures.

Interviews conducted with women in group 2 were focused on the importance of the postpartum examination and lasted an average of 30 minutes.

Results

In conducting postpartum home visits, emphasis was placed on contacting the postpartum woman within 10 days after hospital discharge, with home visit attempts continuing up until 1 week before the scheduled appointment date. Assignments on women not contacted by that time were turned in at the weekly staff meeting preceding the appointment date. (These assignments differed from those termed "not located" in that the latter outcome was used to designate those assignments on which the worker had determined that the prospective patient did not reside at the address given, but was unable to obtain any further information regarding her whereabouts.)

The results of home visits activity for groups 1 and 2 were as follows:

Outcome	Group 1		Group 2	
	Number	Percent	Number	Percent
Total women to be contacted	600	100.0	600	100.0
Moved out of area	9	1.5	8	1.3
Not located	13	2.2	16	2.7
Not contacted by 1 week before scheduled appointment	38	6.3	5	.8
Refused interview	0		3	.5
Interview obtained	540	90.0	568	94.7

Interviews were obtained with 90 percent of the women in group 1 and 95 percent of the women in group 2; more of the assignments in group 1 than in group 2 were turned in as not contacted by 1 week before the scheduled appointment date. This difference was due primarily to

the limited time available to family health counselors in group 1 for conducting home visits, as a result of their involvement in other program activities during the course of the study. In both home visit groups the percentages of women who had moved out of the area and who were not located (as operationally defined) were relatively low.

The outcomes of the postpartum appointments (expressed as percentages kept and not kept out of the total scheduled) for the three study groups are presented in the following table. Women in the home visit groups who were not actually interviewed were excluded from the totals in order to obtain an accurate measure of the effects of the home visit.

Study group	*Percent postpartum appointments*	
	Kept	*Not kept*
Group 1 (N=540)	79.4	20.6
Group 2 (N=568)	83.5	16.5
Control group (N=600)	75.8	24.2

The difference in kept appointment rates between group 1 and the control group was not statistically significant, while there was a statistically significant difference ($P < .01$) between the kept appointment rates of group 2 and the control group. These findings lend only partial support to hypothesis 1, which predicted a significantly higher rate of clinic attendance among women who were visited at home than among those who were not. The second hypothesis, which predicted a significantly higher rate of clinic attendance among women in group 1 than in group 2, is not supported by the results. Indeed, the direction of difference in kept appointment rates between the two groups is contrary to that expected, with members of group 2 exhibiting a nonsignificant tendency to keep appointments at a higher rate than members of group 1.

Within each study group a significant relationship was found between clinic attendance and the number of pregnancies thus far experienced, with the percentage of kept appointments decreasing as the number of pregnancies increased.

It was found that among women having experienced from one to three pregnancies, those in the home visit groups kept their appointments at higher rates than those who were not visited, with only slight differences in kept rates between the two home visit groups. Among women having experienced four or more pregnancies, however, those in home visit group 2 continued to keep their appointments at a higher rate than those not visited, while the rate of kept appointments in home visit group 1 actually dropped below the rate of those not visited. In short, it appears that the two types of home visits were about equally effective in terms of clinic attendance for women in their first to third pregnancy, but had a differential impact on women in their fourth or higher pregnancy.

Discussion

The prediction of higher rates of clinic attendance among members of group 1 than among members of group 2 was based on the assumption that the information given to group 1 would impress the women with the benefits of curative and preventive health practices to the extent that they would be motivated to a higher rate of clinic attendance than those not receiving such information. The findings in this regard, however, do not validate this assumption.

In light of the implications of the findings reported, it is worthwhile to briefly consider some of the factors which may have contributed to the results.

Interviews conducted with group 1 women dealt with the health care of the newborn and of the postpartum woman, with much emphasis placed on the care of the newborn. Data collected in the homes visited within the first 5 weeks following hospital discharge showed that a majority of the women interviewed were cognizant of the basics of infant health care covered in the interview and showed a strong tendency to seek proper medical consultation when needed.

Whether these findings suggest a pattern which might continue beyond the time of the interview is not indicated in the data collected. A major limitation of the study in this regard was that contact with the postpartum woman was restricted to only one home visit when the infant was still quite young. While the timing of the home visit was dictated by the desire to provide services to the mother as soon as possible after discharge and to test the effects of the home visit on postpartum clinic attendance, followup contacts would have yielded information on changes over time. Followup information would have indicated whether knowledge and practices in the 1- to 5-week period were predictive of later practices and later health problems, and it may have

revealed topics that require further emphasis during the initial contact.

The data did show that, among the women interviewed, there was a greater need for information dealing with the care of the postpartum woman than for the information on infant care that was included in the interview. Concerning topics dealing with maternal health, it was found that approximately 50 percent or more of the women required either full or partial explanation of the topics by the family health counselor; for example, only 43 percent could identify symptoms needing a physician's attention. This finding leads to the speculation that if more emphasis had been placed on maternal health care, the hypothesized effect might have been obtained.

The differential impact of the two types of home visits among women at gravidity four or more has already been mentioned. Since similar differences were not observed between the two home visit groups among women at lower gravidity, the possibility exists that women who had experienced several pregnancies may have actually reacted unfavorably to a home visit devoted in large part to providing basic child care information. If so, this subgroup might benefit more from a shorter, more narrowly focused initial visit followed by continued educational and supportive visits. In fact, the higher rates of clinic attendance among the women in group 2 at all gravidity levels suggest that either the twin goals of the informational home visit (providing health information and influencing clinic attendance) may have been conflicting or that the content of the visit requires modification in order to bring about the intended effect. Such modification might consist of attempting to tailor the home visit approach to the needs of specific subgroups in the population, rather than relying on a single, uniform type of visit for all mothers.

A third possibility is that the time limitations which were imposed upon family health counselors visiting members of group 1 may have altered the style of the home visits, thereby diminishing their impact. However, analysis of changes in interviewing time over the study period revealed a gradual decrease for both groups of workers, suggesting that this variable alone would not account for the results obtained.

A final observation concerns the rate at which appointments were kept in the control group, whose members received no home visits. Among these women, 75.8 percent of the postpartum appointments were kept. Since this percentage is considerably higher than is typically reported for return on postpartum appointments in programs serving the medically indigent, it is noteworthy. Also, given this high rate of response in the nonintervention situation, it is difficult to obtain dramatic differences in clinic attendance through the intervention process.

The purpose of this brief discussion has not been to offer explanations which could fully account for the results obtained in this study, but rather to suggest additional factors which might be taken into consideration in interpreting the findings reported.

Comment

Although, under the conditions of this study, a postpartum home visit can affect the keeping of the postpartum appointment, significant differences in home visit and control groups were found only when the home visit was focused solely on encouragement to keep the postpartum appointment. It appears that while a postpartum home visit in which health-related information as well as encouragement to keep the postpartum appointment are offered may be a useful means of providing health information to the postpartum woman, it had relatively little effect on clinic attendance.

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