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Evaluation of Peer Health Worker Prenatal Outreach and Education Program for Hispanic Farmworker Families.

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EVALUATION OF A PEER HEALTH WORKER PRENATAL OUTREACH AND EDUCATION PROGRAM FOR HISPANIC FARMWORKER FAMILIES

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ABSTRACT: This article contains the findings from an evaluation of a prenatal education program to Hispanic migrant farmworker families using peer health workers. The focus of the evaluation was on establishing the validity of the intervention model in the target population. Data are presented on the program setting, characteristics of the clients served, and effects of the educational program on the clients and peer health workers. The evaluation identified factors that established confidence in the program model: (1) there were existing barriers to health care and health information; (2) the program served a culturally specific and disadvantaged population; (3) the prenatal curriculum was culturally sensitive; (4) the peer workers were accepted by the target community; and (5) the model did not threaten the medical community. The directions for future research are presented.

INTRODUCTION

The use of peer health workers to provide health education and services to underserved populations is an intervention widely used in third world nations and one which originally gained popularity in the United States during the Great Society initiatives under the Economic Opportunity legislation of the mid 1960's. Today, increasing health care costs and the growing proportion of minority groups with inadequate health care services, particularly perinatal health care, has lead public

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health providers[1-5] to a renewed interest in the use of peer health workers for education, outreach, and advocacy. Earlier projects in maternal and child health[6-15] were designed to employ peer health workers of similar culture and community characteristics as the target population to bridge the socio-cultural gap between providers and families as well as to provide informational and supportive health care services to underserved groups. With few exceptions[6,13] these projects were placed in large, urban, inner city communities. Reports of these programs found peer health workers were used successfully to teach concepts of primary or secondary prevention as well as to increase maternal-child health services compliance and utilization.

The purpose of this paper is to present an evaluation of a 10-month community-based prenatal education demonstration program for low-income Mexican and Mexican-American women using the peer health worker model. The project, Un Comienzo Sano (A Healthy Beginning), was targeted for three migrant farmworker communities along the Mexican border in southwest Arizona. Mexican/Mexican-American women recruited from the target communities and trained by project staff served as community health *promotoras* (literally promoters, a term commonly used in Mexican for peer health workers). These promotoras in turn recruited women from their communities, and facilitated two 12-week courses based upon a prescribed prenatal education curriculum. The curriculum provided information on self-help perinatal health care concepts and community resources, and it emphasized the value of seeking prenatal health care.

The analysis of the program, based on descriptive and survey methods, describes the setting of the program, the characteristics of the clients served, and the effects of the intervention on the clients and peer health workers. By focusing on examination of these issues, the evaluation addresses the validity of the intervention[16-18] in the target population and suggests directions for further evaluation of program impacts.

METHODS

This case study evaluation employed three research methods. All data were collected between December 1987 and December 1988. First, structured interviews with project staff and health providers on the U.S. and Mexican sides of the border, conducted in the language most appropriate for the respondent, after the project had begun its first cycle of classes and again at the end of the demonstration. Interview protocols were tailored to the different program staff positions and health care providers (e.g. project director, promotora, physician, public program administrator, hospital provider) and specified the topics addressed in the interview.

The second method used ethnographic techniques including field observation, semi-structured interviews, and the gathering of life histories. Data were collected on such topics as migrant life style, utilization of health services, beliefs about prenatal and postpartum health behavior, contraception, child rearing practices, and satisfaction with Un Comienzo Sano classes. These interviews, most often conducted in Spanish, took place in the informants' homes and in the promotoras' classes.

The third source of data was surveys collected by the promotoras on 82 of their participants. The prenatal survey instrument included sociodemographic data, family employment and migrant history, family health history, and utilization of health care services. After delivery, data were collected by the promotoras on participants' prenatal health care utilization, pregnancy outcome, plans for birth control, satisfaction with the classes, and suggestions for program modifications.

RESULTS

Maternal-Child Health Care on the U.S. Side of the Border. Primary care services were available at a community health center; however, the high cost of malpractice insurance prevented the center from offering obstetrical service and women were referred to a single obstetrician in the largest community. In addition, there were two licensed midwifery practices, the only alternative for obstetrical services on the U.S. side of the border. A 235-bed community hospital provided all inpatient services; however, opportunity for childbirth education was limited: prenatal education classes were available in English for a fee, Spanish-speaking staff were not routinely available, and postpartum teaching was available only in English.

There were four sources of payment for obstetrical costs (Table

TABLE 1

Costs for Prenatal Care and Normal Delivery, 1988

U.S. Physician	$ 925
U.S. Hospital	$1,277
U.S. Licensed Midwife (prenatal and delivery)	$ 900
Mexican Physician	$ 210
Mexican Hospital	$ 450

1), farmworker insurance, AHCCCS (Arizona Health Care Cost Containment System, Title XIX demonstration program) migrant funds, and self pay. Women covered by farmworker insurance were eligible to receive obstetrical care in the U.S. or from providers in Mexico. On the U.S. side of the border, farmworker insurance paid 80 percent of provider and 80 percent of hospital charges. On the Mexican side, farmworker insurance paid 100 percent of obstetrical costs.

In order to qualify for AHCCCS, a family had to be at 50 percent of the federal poverty guidelines, provide seven sources of eligibility documentation, and fill out a 36-page application form, which was available only in English. Thus, many families were too intimidated to apply for AHCCCS and many others could not produce the documentation required for processing the application. Through the community health center there were some migrant funds to help pay obstetrical fees; however, when there were no migrant funds available and a woman was ineligible for AHCCCS and unable to pay the private fees, she was left unattended and usually did not seek care. Hospital administrators reported that when migrant funds were unavailable they always observed an increase in the numbers of women who arrived at the hospital emergency room in labor without having had prenatal care.

Women chose care by the U.S. midwives because it was less expensive and because they were permitted to pay in installments after delivery. Also, unlike the U.S. physicians, the midwives would accept the women as patients even though they were well advanced in pregnancy. Migrant women particularly had problems with the latter, as they lived six months out of the year in another location, and if upon returning to the area they were advanced in their pregnancy, they were not accepted as patients by the physicians.

Four public health care resources were available to the target population: the county health department (primarily concerned with immunizations and well baby screening); the federal nutrition program, Women, Infants, and Children (WIC); the Arizona Department of Economic Security (DES); and the Migrant Head Start program. The WIC counselors, women from the same communities as the clients, were a primary source of social support for the WIC clients, often providing referrals for crisis intervention, family problems, and medical care.

Maternal-Child Health Care Environment on the Mexican Side of the Border. While the majority of the women served through Un Comienzo Sano resided on the Arizona side of the border, their health care utilization was not limited to the American side. Often, families were treated simultaneously by doctors on both sides of the border for the same illness or pregnancy. Physicians on the Mexican side were aware of this phenomenon, and to some extent American physicians as well. U.S. physicians were critical of the medical practices of their counterparts in Mexico, and there were no formal, or informal, communications with Mexican physicians or the Mexican health care system by U.S. health care providers.

There were three sources of maternal-child care in the Mexican border community: a government hospital serving families who had at least one spouse employed in private industry in Mexico, private medical clinics for families covered by farmworker health insurance, and public health clinics for those with no insurance coverage.

With a few exceptions, obstetrical practices on the Mexican side of the border did not differ significantly from American medical practices. The standards for prenatal history, physical and laboratory examinations, and risk assessment followed American obstetrical practice standards. Labor and delivery practices in the hospital did not differ significantly from those of their United States equivalents; however, the government facility lacked the sophisticated fetal monitoring equipment available in some private clinics and found in the American hospital. Mexican physicians identified lack of prenatal care, inadequate nutrition, and lack of knowledge about family planning methods as problems of poorer women and of women who had recently moved from interior parts of Mexico.

Women reported that their choice of a provider for care was based on personal preference and economics. While women indicated the availability of modern technology with U.S. providers was important, they preferred doctors in Mexico for their willingness to listen to their problems and their ability to communicate in Spanish. Similarly, women consulted pediatricians, alternating between providers in the U.S. and Mexico. Before seeking medical advice, particularly if the baby was not very sick, mothers often consulted pharmacists and obtained medications in the Mexican pharmacies where they could be bought without prescription, a source of frustration to physicians on both sides of the border.

Cultural Beliefs. The ethnographic study, which investigated the domains of pregnancy, delivery and postpartum customs, child rearing, and health care utilization behavior, found that the women observed many traditional customs and beliefs learned by mothers from their own mothers or other close female relatives. Pregnancy advice given to the women centered around what food and drink they should or should not consume, how to maintain their home environment, and acceptable

activity levels. The women adhered to the theories of hot and cold such as the avoidance of chile and cool moving air; used herbal teas, especially manzanilla (camomile) tea taken prior to delivery to ease the pain; and observed folk beliefs such as avoidance of a lunar eclipse. While women observed their cultural traditions and often did not value seeking early medical care during pregnancy, they were acutely aware of untoward signs and symptoms of pregnancy. Whenever they experienced headaches, swelling, dizziness, or pain, they immediately sought medical advice.

Traditional postpartum health precautions were also practiced by most women. They observed the "cuarantena" or "dieta", the 40 day convalescence after childbirth during which time they avoided cool air, drafts, certain foods and activities, and abstained from sexual intercourse. Most women wore a "faja", an elastic belt which encircled the waist and stomach, a practice they believed to prevent hemorrhage, support the uterus, and allow them to return to their pre-pregnancy size more quickly. Strict observation of the cuarantena, which required the women to rest 40 days, was no longer followed. They resumed some activity, but did not engage in strenuous activities, and female relatives came into the home to clean and to prepare the food. Although some of the more traditional grandmothers advised their daughters not to bathe during the cuarantena because it would cause the mother to become cold and the milk to dry up, most of the younger mothers did so.

Sociodemographic Characteristics. The average participant was 25 years old, married, born in Mexico, educated in Mexico, and lived on the U.S. side of the border (Table 2). It was unusual for a woman to have completed U.S. high school or its Mexican equivalent (preparatario), or to have attained formal education beyond high school. The average number of years a woman had resided on the border was 17 years. The typical father of the baby was 29 years old, born in Mexico, attended school in Mexico, and worked as a fieldworker migrating with the crops (45 percent). Fathers (35 percent) were more likely than the mothers (28 percent) to have graduated from high school or to have obtained formal education beyond high school.

Most of the women were pregnant with their first or second child (Table 3). Notably, four women who had 5 children and one with 7 children also attended the classes. Fifty-three percent of the women registered for care in the first trimester of pregnancy, and 47 percent had 10 or more prenatal visits. The number and location of providers seen by the mothers before delivery not only documented that mothers simultaneously utilized health care providers on both sides of the bor-

TABLE 2

Sociodemographic Characteristics of Women

Characteristic	*n*[a]	%
Total	82	100
Age		
15-19	17	21.0
20-24	15	18.5
25-29	28	34.6
30-34	14	17.3
35-38	7	8.6
Marital status		
Married	67	81.7
Single	13	15.8
Divorced	2	2.4
Birthplace		
Three U.S. border communities	9	11.0
U.S. not Arizona	4	4.9
Mexican border community	37	45.1
Mexico	29	35.4
Other country	3	3.7
Country of primary schooling		
United States	18	22.0
Mexico	52	63.4
U.S. and Mexico	10	12.2
Other country	2	2.4
Highest grade attained		
1-6	17	21.0
7-9	26	32.1
10-11	15	18.5
12 or U.S. high school equivalent	8	9.9
more than high school	15	18.5
Current place of residence		
Three US border communities	72	87.8
Mexican border community	10	12.2
Years living along border		
1-5	19	23.8
6-10	13	16.3
11-20	27	33.8
21 or more	21	26.3

[a]Sum of responses for individual items may not total 82 because of missing data.

TABLE 3

Pregnancy Characteristics of Women

Characteristics	*n*[a]	%
Live birth order		
First child	39	47.6
Second child	21	25.6
Third child	13	15.9
Fourth or more	9	11.0
Trimester prenatal care began		
No care	2	2.7
First	40	53.3
Second	24	32.0
Third	9	12.0
Number of prenatal visits		
1-4	11	14.1
5-9	30	38.5
10 or more	37	47.4
Types of provider seen		
U.S. MD	36	43.9
U.S. MD and Mexican MD	12	14.6
U.S. midwife	9	11.0
Mexican MD	8	9.8
Mexican MD and U.S. midwife	7	8.5
Two U.S. providers	5	6.1
U.S. MD and U.S. midwife	4	4.9
Two U.S. providers and U.S. midwife	1	1.2
Birth attendant		
U.S. physician	55	67.1
Mexican physician	12	14.6
Licensed midwife (U.S.)	15	18.3
Payor of obstetrical costs		
Self pay	36	46.8
AHCCCS (Medicaid)	22	28.6
Insurance	16	20.8
Migrant funds	3	3.9
Birthweight		
<1500 grams	1	1.2
1501-2500 grams	1	1.2
>2500 grams	80	97.6

[a]Sum of responses for individual items may not total 82 because of missing data.

der (23 percent), but also presented a picture of difficulty in accessing care (35 percent of the women saw 2 or more providers). Two-thirds of the mothers were delivered by U.S. physicians, 18 percent by a (U.S.) licensed midwife, and 15 percent by a Mexican physician. Most frequently the family paid for the obstetrical care (47 percent); 29 percent of the mothers were covered under AHCCCS; 21 percent had private insurance; and 4 percent were assisted with migrant funds.

Most mothers delivered full term babies as measured by birthweight. Documented poor medical outcomes included two mothers with low birthweight infants, one deadborn (no reason given by the mother), and one infant who died at one month of age from cardiac anomalies. Over 90 percent of the mothers stated they did not want to have another baby soon and 87 percent were using or expected to use birth control. The most preferred method of birth control was the pill, followed by tubal ligation.

Data on the general health care utilization are summarized in Table 4. Approximately one-third of the women used providers in Mexico, another third went to U.S. providers, and 22 percent turned to another family member. Additionally, mothers stated almost 60 percent of the time there was "no special place" the family went for health care. For child health care, mothers reported they used U.S. providers most often (48 percent) followed by Mexican providers (32 percent). Another 18 percent either had no regular source of care or relied on themselves in caring for their child. When immunizations were considered, the same pattern of no regular source of care and use of multiple sources of care was reported.

Effects of Intervention on Participants. Classes were attended by both pregnant and parenting women, some of whom were accompanied by their spouses, boyfriends, mothers, sisters, other relatives, and in some cases by their children. Initially women had difficulty adjusting to the presence of men in the classes, especially spouses or boyfriends of other women, and they were hesitant to speak out. Their embarrassment was shared by some of the promotoras who had difficulty, with males present, broaching intimate topics such as birth control or showing the birthing film.

Most of the information learned in the classes was new to the women, and they eagerly shared what they learned with their family and other community women. Nutrition and exercise information was particularly important to the women, and informants were anxious to recount to the evaluators what they had learned in classes. Women with previous pregnancies reported with astonishment how new the informa-

TABLE 4

Utilization of Health Care

Characteristic	n^a	%
Who do you turn to for help when sick?		
MD or clinic in Mexico	27	35.5
MD or clinic in U.S.	25	32.9
Both U.S. and Mexican providers	1	1.3
Family member	17	22.4
Other	6	7.9
Regular source of care for family		
None	47	58.8
U.S. provider	18	22.5
Mexican provider	15	18.8
Source of child's care[b]		
U.S. provider	21	47.7
Mexican provider	14	31.8
Both U.S. and Mexican provider	1	2.3
Rely on myself	6	13.6
No regular source of care	2	4.5
Place of child's immunizations		
None	2	5.9
Migrant clinic	10	29.4
County clinic	8	23.5
California	2	5.9
U.S. provider	1	2.9
Mexican provider	11	32.4

[a]Sum of responses for individual items may not total 82 because of missing data.
[b]Data on general utilization of health care resources were collected prenatally, thus child care applied to 44 mothers.

tion was. They also reported the exercises not only helped them control labor pain, but also generally made them feel better. Men believed classes were particularly useful in clarifying what to expect not only of the process of labor and delivery, but also of their partner's responses.

In addition to teaching self care concepts, the classes provided a much needed emotional support system for the women. At an individual level, women saw the promotoras as their friends and frequently sought advice from them on a number of subjects. Within the group,

many women acknowledged being despondent upon discovering they were pregnant again and were consoled by each other's presence and by the sharing of similar feelings and experiences.

Effects of Intervention on Promotoras. Promotoras fulfilled three essential roles for the women and their families: teacher, friend, and advocate. They led weekly classes, made home visits, provided transportation to classes, and intervened on behalf of the women with public agencies to assist families to enroll for prenatal services.

Without exception, the promotoras reported the women had easier labors and were less fearful of labor and delivery as a result of having attended the classes. This positive reinforcement became a source of great pride for each promotora. The promotoras experienced unbounded pride in their new knowledge and visible role in the community. Initially their reaction was similar to the women they taught, fascination with the new information. With repetition and integration of the learning, they began to see themselves as legitimate experts and they made specific requests of project staff for additional training, particularly on newborn care and parenting skills. All promotoras described the importance of their relationship of teacher and friend to the families. This interpersonal commitment to the participants, an extension of the informal helping relationships that were already part of their social networks, was viewed by the promotoras as a critical component of their role. The promotoras' stature in the community was also enhanced, as demonstrated by the fact that they were frequently approached by phone or on the street for health care advice by non-participant families.

DISCUSSION

Findings on the setting for the demonstration and the characteristics of the clients served confirmed both the need for the program in the community as well as the appropriateness of using the peer health worker model with the target group. The health care needs and barriers to prenatal care identified were: the lack of a consistent medical provider; inability to pay for care; lack of transportation; language barriers between the women and their providers; lack of community based educational resources; and inadequate knowledge about self care during the childbearing period.

The Mexican/Mexican-American women served by Un Comienzo Sano represented culturally traditional, economically disadvan-

taged, young farmworker families. They generally had little formal education and depended on family members for information about caring for themselves and their babies. Information on the childbirth practices of the women studied confirmed practices described in earlier ethnographies of Mexican and Mexican-American women.[19] Women used cultural beliefs and practices to explain pregnancy, treat mild illnesses, and as an adjunct to prescribed therapeutic regimens by pharmacists or physicians. Few of these health practices were in conflict with Western medical therapies and women freely recognized and used medical practitioners. For routine prenatal care and childhood immunizations women preferred the most convenient and economical health facility, often alternating between practitioners on both sides of the border. In treatment of more serious illnesses of children or after recognizing abnormal signs or symptoms in pregnancy, women quickly consulted physicians. When it was economically feasible, women preferred care on the U.S. side of the border where they perceived technology to be more advanced and available. Similar observations on the health utilization patterns of migrant farmworker families have been reported by others.[20]

The educational intervention was successful for both the participants and their families. After attending classes, women reported easier labors and greater feelings of wellbeing. This is consistent with a recent report on Mexican-American women whose prenatal anxiety was lessened when they had a desire for control during labor and delivery, and social support from family and friends.[21] Not only did women find the educational aspects of the program new and useful, but also the caring, warmth, and encouragement offered by the promotoras was a lifeline for many of the women. Class attendance by family members served to reinforce the class material as well as to increase communication among family members. While some of the material presented differed from that learned from female relatives and friends, there was no evidence that conflict ensued. To the contrary, the concepts learned in class were practiced by the participants and shared with others in the community.

The peer health demonstration model was successful for several reasons. Through the local WIC, DES parent aide, and migrant programs there was a history of previous successes with community workers. From a political standpoint, the project also met several criteria for successful use of peer health workers:[22] it was a small program in a relatively isolated area where services were poor; it did not pose a powerful force which could threaten established medicine; it was low cost; and it did not interfere with established government bureaucracy. While the program did not politically threaten the established medical community,

this "invisibility" may be a liability as the program's long-term survival will depend upon its integration into the "legitimate" health system.

There is extensive documentation on the training, responsibilities, and supervision of peer health workers, but much less is known about the opportunities afforded to workers and changes in their social identity as a result of their newly acquired role. Previous reports[1,7,10] documented increased employment opportunities and educational advancement, increased self esteem, and a sense of satisfaction in helping others. While no long term observations on health workers exist, one report[23] conjectured that an increase in social status and change in aspirations would occur as a result of the training and this in turn would promote movement of worker values toward the dominant culture.

Short term observations of the promotoras in this study did not reveal social distancing from the families in the communities. A new social role for the promotoras that was part teacher, part friend and part advocate evolved from the training and practice process which cultivated their interpersonal skills and filled a great appetite for new information. Mastery of new material and competencies as well as the recognition and appreciation from the women they taught profoundly enhanced their self esteem. Observation that families were better off after attending classes and the community recognition and acceptance of their new teaching role empowered these women, most of whom formerly had never attained a position of prestige in their communities. Their dedication and commitment to the women and their families were the fundamental reasons for the success of the program.

Evaluation of the demonstration program directed toward teaching prenatal self help concepts validated use of the peer health model in the migrant farmworker community and sharpened our conception of the role of the peer health worker. The integration of the model into the existing community health care system and its partnership with the existing medical community, the long term effects of empowerment in the promotoras, and an impact evaluation of the model provide directions for future investigation.

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COMMUNITY ACTIVISM RELATING TO A CLUSTER OF BREAST CANCER

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ABSTRACT: In 1985, residents of a suburban community in South Florida became concerned when several young women were diagnosed with breast cancer. First as individuals, then through a community-based effort, they attempted to gain attention and action on what they believed to be a cluster of breast cancer. Through their efforts to find out whether some agent or toxic exposure existed in the community that might have caused breast cancer, the women formed a community-based organization. This paper describes the activism of the women to resolve the issue through an epidemiologic study of the breast cancer occurrence in their community. Furthermore, it substantiates the need and role of rational community response in resolving community threats and concerns.

INTRODUCTION

Diverse issues have been addressed and frequently resolved through community action. Nationally, internationally and locally, individuals interested in common causes with similar goals have formed various action and support groups, striving to answer questions and confront threats. Such community involvement has led to university,

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This paper is dedicated to the memory of Liviana Avello, a leader and motivator in the quest for knowledge of the breast cancer issue in Kendale Lakes, and to the Kendale Lakes Women Against Cancer.