EVALUATING EMPOWERMENT OF WOMEN IN THE MATERNAL INFANT HEALTH OUTREACH WORKER (MIHOW) HOME VISITING PROJECT IN RURAL APPALACHIA

by
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ABSTRACT

When measuring the empowerment of participants in a study, researchers face two initial challenges. First, they must define empowerment in a way that is accurate for the population measured. At the same, they must assure that the study design is not dis-empowering to its participants. The Maternal Infant Health Outreach Worker (MIHOW) Project, a home visiting project for pregnant women and mothers in rural Appalachia and the Mississippi Delta under the direction of the Center for Health Services at Vanderbilt University, faced these challenges in designing an evaluation to measure the empowerment of its participants in rural, southwestern Virginia from 1990 to 1993. This paper examines participants' empowerment compared to that of non-participants and also explores what aspects of the evaluation were empowering to the women interviewed.

MIHOW participants scored significantly better than non-participants near the 12-month birthdays of their children on three of the empowerment measures -- Knowledge of Community Resources, Availability of Family Support, and Helpfulness of Family Support -- while non-participants scored significantly better than MIHOW participants on Use of Community Resources. The survey's Consent for Research Study and use of self-report were regarded as empowering while two demographic questions -- asking for social security number and whether a pregnancy was planned -- were considered dis-empowering.

MIHOW PROJECT

The Maternal Infant Health Outreach Worker (MIHOW) Project began as a consortium of the Center for Health Services at Vanderbilt University and community-based organizations that work with low income, rural families in Tennessee, Kentucky, and West Virginia.

The low-cost, community-based services offered by MIHOW are provided primarily by local women for local women. The community workers offer home visits to pregnant women and mothers of young children, following a curriculum that focuses on personal health, child development, positive parenting, and how to advocate with health and social service systems. In this way, the program endeavors to empower its participants, its workers, and the communities where MIHOW organizations are located. This study investigates the empowerment of MIHOW participants.

Since the formation of six initial sites in three states began in the early- and mid-1980's, MIHOW has expanded to sixteen sites. Four states in the Appalachian region have MIHOW sites,[1]

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[1] The ten Appalachian sites are:
Camden on Gauley Medical Center (Camden on Gauley, West Virginia)
Henderson Settlement (Frakes, Kentucky)
Mercy Mission (Middlesboro, Kentucky)
Mountain Community Parent Resource Center (Duff, Tennessee)
New River Health Association (Scarbro, West Virginia)
Stone Mountain Health Services (Jonesville, Virginia)
Tri-Area Health Clinic (Laurel Fork, Virginia)
Tug River Health Association (Gary, West Virginia)
Whitley County Communities for Children (Williamsburg, Kentucky)
Wythe County Health Department (Wytheville, Virginia)

while the Mississippi Delta region contains six sites in West Tennessee and Eastern Arkansas.[2]

HISTORY OF MIHOW EVALUATIONS

Clinic survey.

In 1981, the Center for Health Services conducted a survey of the directors of health clinics and leaders of other community organizations involved with the Center. Asked to describe what they would do with a small grant to improve maternal and infant health in the areas they served, the directors and leaders responded that they would establish a program through which workers would go out into the community and establish links between isolated, rural families and the community organization. Thus, the theme of outreach formed the basis of what became the MIHOW project.

Baseline surveys.

Since then, sites have conducted baseline surveys of area women who have limited resources (such as income or education) before starting a MIHOW program. Sites use the survey to learn about women's social support, previous and current pregnancies, health, and their opinions on needed resources.

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[2] The six Mississippi Delta sites are:
Boys, Girls, Adults Community Development Center (Marvell, Ark.)
Children and Family Services (Covington, Tennessee)
Fayette County MIHOW (Somerville, Tennessee)
JONAH (Jackson, Tennessee)
Morris Booker Memorial College (Dermott, Arkansas)
Tennessee Hunger Coalition (Bolivar, Tennessee)

The first baseline survey took place in 1982 for the premiere MIHOW sites in Kentucky and Tennessee. Completed this year, the most recent baseline survey was administered to women by workers from six new MIHOW organizations in Arkansas, Kentucky, and Tennessee and six older MIHOW sites in Kentucky, Tennessee, Virginia, and West Virginia.

Ford study.

Starting in 1983 and lasting until 1988, this evaluation of the impact of MIHOW on participants was funded by the Ford Foundation. The study measured pregnancy outcomes, self-care, birth outcomes, infants' feeding and health care, parenting, and infants' development for MIHOW's home visiting participants in five of the original sites. Participants scored significantly better than non-participants for number of prenatal visits, mother-child interaction and parental management of the child's environment, and child development (Clinton *et al.*, 1992).

Qualitative evaluation.

A 1989 to 1990 qualitative study (Clinton, 1990) asked both participants and MIHOW workers about their impressions of the MIHOW Home Visiting project. In interviews and focus groups, MIHOW participants revealed how the program helped to reduce their sense of isolation, increase their assertiveness with welfare and legal systems and within their families, and improve their sense of purpose and hope for the future. Almost all of the mothers

participating in the study said they had learned more about health because of their participation in MIHOW.

MIHOW PARTICIPANT EMPOWERMENT STUDY.

In 1990 under a grant from the Bernard van Leer Foundation, two sites in Virginia requested that MIHOW measure the empowerment of its participants. (See Appendix 1 for descriptions of these two sites.)

What is Empowerment?

As Rappaport (1985) states,

> Empowerment for a poor, uneducated Black woman can look very different than for a middle-class college student or a 39-year-old business man, a white urban housewife, or an elderly person resisting placement in a nursing home.

Following Rappaport's philosophy, MIHOW staff and local site directors used a participatory process to select indicators of empowerment for the MIHOW population (see Maloney and Davis, 1990):

- Increased knowledge of community resources
- Increased use of community resources
- Decreased isolation
- Increased self-esteem
- Goal-setting

In this study, MIHOW examined three of the indicators -- increased knowledge of community resources, increased use of community resources, and decreased isolation -- with the following research questions:

Are MIHOW participants more empowered than non-participants in that they:

- are more knowledgeable of community resources?
- use more community resources?
- are less isolated because social support is more available and more helpful to them?

Methods for Measuring Empowerment in the MIHOW Study.

Forty-four participants completed interviews between their MIHOW children's 11- and 13-month birthday while 50 non-participants completed interviews between their children's 9- and 14-month birthdays. Participation in the study was voluntary. Informed consent was obtained.

Comparison Strategy. Two community programs in rural southwestern Virginia and West Virginia provided the comparison sample for the study. In return, each community program received locally specific needs assessment information. Data were collected during the summers of 1991 and 1992 by student interns of the Student Health Coalition, another project of the Center for Health Services. (For a detailed look at the Virginia comparison group, see Skaggs *et al.*, 1994.) Approximately 50% of the comparison sample were offered monetary compensation of $15 for participation in the study.

Table 1

NUMBER OF WOMEN WHO COMPLETED INTERVIEWS

PARTICIPANTS		NON-PARTICIPANTS	
Dungannon	28	New River	23
Western Lee	16	Saltville	27
TOTAL PARTICIPANTS:	44	TOTAL NON-PARTICIPANTS:	50

TOTAL WOMEN IN STUDY: 94

WOMEN IN THE STUDY.

The first part of the survey was designed to obtain demographic information about the women in the study. Table 2 compares demographic characteristics of participants and non-participants. (In Table 2 and throughout this report, differences are significant if $p \leq .05$; X^2, t-values, and p-values are given only for differences that are significant; "missing" means that the woman did not answer the question; and some total percentages do not equal 100% because of rounding.)

To compare the responses to dichotomous demographic variables of participants and non-participants, contingency tables were used. For transportation, contingency tables were also used. For age and number of government services, t-tests were used. (See Appendix 2 for a detailed explanation of the use of statistical measures for demographics.)

Most of the women in the study said they were unemployed, and most were European American. Most women were in their 20's,

though the MIHOW participants were significantly older. (Non-participants' average age was 23 while MIHOW participants' average age was 25.) Over half reported having completed high school. Most women in the study said they were married, with significantly more participants than non-participants married. Most of the women reported having transportation available all or most of the time, and most of the women were not currently pregnant. Most women said they were receiving at least one of the following government services: Food Stamps, Medicaid, and the Supplemental Food Program for Women, Infants, and Children (WIC).

Table 2

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS COMPARED TO NON-PARTICIPANTS

	Participants (n=44)		Non-participants (n=50)		
Working Full- or Part-time?					
Yes	6	(14%)	7	(14%)	
No	38	(86%)	43	(86%)	
Race?					
Non-European[3] American	0	(0%)	3	(6%)	
European American	43	(98%)	47	(94%)	
(missing)	1	(2%)	0	(0%)	
Average Age?	25		23		t=-2.26 p=.03
In school or completed high school?					
Yes	16	(36%)	31	(62%)	
No	12	(27%)	19	(38%)	
(missing)	16	(36%)	0	(0%)	

[3] For the three non-European American non-participants, two reported being African American and one reported "Other."

Table 2 (cont.)

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS COMPARED TO NON-PARTICIPANTS

	Participants (n=44)		Non-participants (n=50)		
Married?					
Yes	36	(82%)	28	(56%)	X^2=7.18
No	8	(18%)	22	(44%)	p=.007
Is transportation available:					
All or most of the time	30	(68%)	39	(78%)	
Some of the time	11	(25%)	9	(18%)	
Seldom or never	3	(7%)	2	(4%)	
Currently pregnant?					
Yes	4	(9%)	2	(4%)	
No	40	(91%)	48	(96%)	
Currently receiving which of the following government services?					
Food Stamps					
Yes	32	(73%)	33	(66%)	
No	10	(23%)	17	(34%)	
(missing)	2	(5%)	0	(0%)	
Medicaid					
Yes	33	(75%)	33	(66%)	
No	10	(23%)	17	(34%)	
(missing)	1	(2%)	0	(0%)	
WIC					
Yes	37	(84%)	46	(92%)	
No	7	(16%)	4	(8%)	
Number of Government Services received:[4]					
0	7	(16%)	3	(6%)	
1	1	(2%)	11	(22%)	
2	7	(16%)	7	(14%)	
3	29	(66%)	29	(58%)	

[4] If any of the answers for Number of Government Services were missing, we assumed that the woman did not receive the service.

SELECTION OF EMPOWERMENT MEASURES.

To look at participants' and non-participants' knowledge and use of community resources, MIHOW administrative staff and workers designed two measures based on one developed by Gatz *et al.* (1982). The **Knowledge of Community Resources** measure examines how much women know about available community services. Women were asked:

For the following list of community resources, answer yes if you would know how to help yourself or someone you know (family, friends, or others) get the following types of services:

Education
- Information on adult education (GED, college courses, vocational training, literacy)?
- Childbirth preparation classes?
- Family planning?

Financial Assistance
- AFDC?
- Food stamps?
- Help with heat, light, or electric bills?
- Housing assistance?
- Free or low-cost legal help?
- WIC (the Supplemental Food Program)?

Medical Care
- Baby (immunization) shots?
- Medicaid?
- Medical care you can afford?
- Transportation to medical care?
- Well-baby medical services?

Miscellaneous
- Assistance with alcoholism, drug abuse or depression?
- Help with child abuse, incest, or domestic violence?
- Counseling or other mental health services?
- Help getting a job?
- How to relax and have fun?
- Support groups?

The **Use of Community Resources** measure examines whether the women have actually used seven of the services. For this measure, women were asked:

Which of the following services have you USED?

Baby (immunization) shots?
Childbirth preparation classes?
Family planning?
Medicaid?
Medical care you can afford?
Well-baby medical services?
WIC?

To examine participants' and non-participants' degree of social isolation, MIHOW used a measure developed by Carl Dunst *et al.* (1984). With input from Dr. Dunst, MIHOW administrative staff made minor changes to the **Family Support Scale** to measure the availability and helpfulness of eighteen types of social support during the last three to six months. The measure assumes that if a resource is not available, it is not helpful.

Questions were read to participants by MIHOW workers and to non-participants by Student Health Coalition interns.

EMPOWERMENT MEASURE OUTCOMES.

MIHOW compared participants' and non-participants' responses to each of the four measures. For dichotomous scores (used for Knowledge of Community Resources, Use of Community Resources, and Availability of Family Support), contingency tables were used. For the non-dichotomous scores in Helpfulness of Family Support and the means of all four measures, t-tests were used. (See

Appendix 2 for a description of the mean scores and statistical tests used for the empowerment measures.)

Knowledge of Community Resources Outcomes.

The percentage of participants who said they knew how to help themselves or someone they know get community resources was significantly higher than non-participants for five of the 20 services: affordable medical care; transportation to medical care; well-baby medical services; assistance with alcoholism, drug abuse, or depression; and support groups. Participants average score for knowledge of the twenty community resources was also significantly greater than non-participants.

Table 3

KNOWLEDGE OF COMMUNITY RESOURCES: RESPONSES FOR WHICH THERE IS A STATISTICAL DIFFERENCE BETWEEN PARTICIPANTS AND NON-PARTICIPANTS

	Participants N=43	Non-participants N=50	
Knowledge of:			
Medical care you can afford	81%	62%	X^2= 4.22, p=.04
Transportation to medical care	84%	62%	X^2= 5.42, p=.02
Well-baby medical services	98%	72%	X^2=11.27, p<.001
Assistance with alcoholism, drug abuse, or depression	72%	46%	X^2= 6.46, p=.01
Support groups	42%	22%	X^2= 4.25, p=.04
KNOWLEDGE MEAN:	.82	.72	t= -2.98, p=.004

Discussion of Knowledge Outcomes.

It could be argued that home visitors had some impact on providing participants with useful information about community resources, especially those concerning health. The five variables that were significantly better for participants are directly or indirectly related to health concerns.

Use of Community Resources Outcomes.

Significantly more MIHOW participants reported having used only one community resource (well-baby medical services) more than non-participants. Significantly more non-participants reported having used childbirth preparation classes, family planning, and WIC. Non-participants average use of the seven services was also significantly higher than participants.