

The effects of suburban villages' health volunteer plan on women's health knowledge and attitude

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ABSTRACT

Background: To achieve stable social development, the cooperation of all members of a community is basically required. Providing and improving the health standard is one of the most fundamental dimensions of human social evolution. This is more essential than the other aspects of development (public cooperation demands) and health volunteers are the forerunners of this cooperation, who have voluntarily set about having the public participate in providing and elevating the level of community health. The present study aimed to determine the effect of implementing "the health communication plan" by health volunteers in suburban villages regarding the health knowledge and attitude of rural women. **Materials and Methods:** In this quasi-experimental study, knowledge and attitude of 121 females (age 15–49 years), who were under the supervision of health centers in four suburban villages (the case group), before and after performing the health volunteer plan, were compared to those of 94 females (age 15–49 years) in another group of four suburban villages (the control group) lacking health volunteers under the care service of two rural health centers. Data gathering instrument was questionnaires and interviews. The obtained data were analyzed by SPSS (ver. 11.5) using statistical paired *t*-test and Sign test. $P \leq 0.05$ was considered to be statistically significant. **Results:** The study showed that the mean of rural women's health knowledge and attitude had increased and there was a significant difference between before intervention and after intervention values in the two groups ($P < 0.001$). Comparing the averages of the two groups also revealed a significant difference ($P < 0.001$). **Conclusions:** According to the findings and the positive effects of performing suburban health volunteer plan on the health knowledge and attitude of rural women, it would therefore be important to suggest that suburban health volunteers are very helpful and effective in improving the knowledge and attitude level of rural women. In brief; as a direct result of their health performance, performing the plan all over rural health centers is recommended.

Key words: Attitude, health volunteers, knowledge, suburban villages

Access this article online	
Quick Response Code:	Website: www.jehp.net
	DOI: 10.4103/2277-9531.98570

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This article may be cited as:

Miri M, Ramazani AA, Moodi M, Mirkarimi K. The effects of suburban villages' health volunteer plan on women's health knowledge and attitude. *J Edu Health Promot* 2012;1:12.

INTRODUCTION

Reaching social stable development, as a whole, requires the cooperation of all members of a community. Providing and improving health standard is one of the financial dimensions of human social evolution, which, more than the other aspects of development, demands public cooperation.^[1] For health approach providing all people until 2000, World Health Organization has been averred on individual's role in terms of health services.^[2]

Fundamental changes have recently occurred in government's strategy in the case of using health services in such a way that are fairly reachable. Due to community involvement, vast majority of countries have essentially developed in delivering of health service.^[3] Survey of health service providing among countries including China, Malawi, Uganda, Indonesia, and India declared that using community participation can beneficially provide these services and lead subsequently to promoted knowledge and modified attitude among health care providers and community.^[4,5] Thus, in Iran, public participation in health affairs started in 1369 (1990) as an experimental plan in the south of Tehran, comprising 160 volunteer females. The first requirement of the plan and the continuity of this trend was activating health services in large cities; especially in the suburbs. In fact, the plan was actually enforced in areas where the health network was located, because in terms of citizen standards, the coverage for the neediest group of the society has poorly expanded.^[6,7]

Regarding the significant success of the plan, it was enforced all over the country since 1993. At present, health volunteers' activities in the provinces and cities – in addition to the improvement of health condition of people in the areas under health service – have led to publication and employing of proper health behaviors. Moreover, the volunteer participation of these women provides them an active role playing in the economic, social, and cultural development of the country; in some areas, they have been found to extend their activity domain in accordance with public needs and even in some social and familiar cases they have assisted people. Fortunately, under the present circumstances, we find people more inclined to participate in the plan.^[8]

Health volunteers were trained with appropriate and attuned educational methods for adult education by 4000 efficient instructors all over the country. They can, therefore, achieve the ability to mobilize families under their own supervision on the basis of intersectional cooperation to solve life and health problems of the society. Health volunteers are eligible individuals to transfer health materials since they are both homolingual and homocultural with local communities' members. People in every sector of the society have their own beliefs and traditions. So, health volunteers assist people to have a critical insight into their traditions and maintain their useful habits, beliefs, and customs, and revise their own incorrect traditions.^[6]

Few studies assessing the function of health volunteers have been carried out throughout the country.^[9-13] An investigation undertaken by Mohsen Naghavi in 1995 in Health Assistance Office of Health Ministry toward the role of health volunteers revealed that health volunteers had caused incredible increase in knowledge and performance indicators.^[9]

Another study done by Dr. Mohammad Zadeh *et al.* in Lanjan township (Zarrinshahr) in 1996, titled "Assessing health volunteers," declared that by considering 10 health knowledge indicators, four indicators in both centers and five indicators in one of them had improved due to health volunteers' activities; but one indicator did not improve significantly. All three health performance indicators promoted only in one of the centers ($P < 0.001$). But health volunteers' plan in Lanjan in Isfahan province was not successful 1.5 years after its start.^[10]

In another study by Ali Almasi *et al.* titled "The effect of health volunteers on the awareness of mothers in the population under community medicine education in Kermanshah (1999)," it was also found that health volunteers are influential in awareness advancement of people and they can be effective on the health level of the society and health behavior.^[11]

A study aimed at investigating the village health volunteer participation in tuberculosis control in southern Thailand indicated that a considerable number of undiagnosed cases in the community are detected by active screening under the health volunteers' performance.^[14]

Consequently, due to incredible success of the plan and the fact that in the suburban villages supported by rural health offices women are especially deprived of health care facilities, it is absolutely necessary to carry out health volunteer plan in these regions. The present study aimed to determine the effect of performing "the health communication plan" by health volunteers in suburban villages regarding the health knowledge and attitude of rural women.

MATERIALS AND METHODS

In this quasi-experimental study, which is a field-trial one, the characteristics of the subjects before and after intervention (health volunteers' plan) were compared with their traits 6 months after the intervention. Also, 6 months after performing the health volunteers' plan, the characteristics were compared with those of a similar population in the control group.

The village females of age 15–49 years took part in the experimental assessment, who were under the health supervision of health offices of suburban villages. At the outset, by using cluster sampling, of all health care centers of the village under Birjand township health center, two rural health centers were selected. Secondly, from the suburban villages under the supervision of the health offices of the above-listed centers, four villages (as the case) and four villages (as the

control) were chosen. Thirdly, all 15–49-year-old females in both case and control groups were given a primary test. Then, in every case, village health volunteers aged 14–49 years were chosen, and following this, necessary instruction, based on textual materials, was given to health workers and through them to health volunteers by health center experts. After this, health volunteers held instruction classes for 14–49 females. Six months later, both case and control groups were given a second test by means of a questionnaire. The questionnaire used consisted of 25 questions including (1) demographic questions (age, education, and job), (2) knowledge questions, and (3) attitude questions.

Knowledge questions included questions concerning: (a) safe drinking water (2 queries; 4 points), (b) baby care and nutrition (11 queries; 11 points), and (c) family planning (5 queries; 10 points).

Questions regarding females' attitude were five which were graded on the basis of Likert triple scale (agree, disagree, and neutral) from 1 to 3 (totally 15 points). Because of low education level of female villagers, they were interviewed at their houses by female health associates who then filled in the questionnaires themselves. The determining factor of being studied was constant habitation of 15–49 females of the suburban villages during the plan and a period of 6 months after that; if a subject was not found to be living in the original home after three referral, she was omitted from the study list. The obtained data were analyzed by SPSS (ver. 11.5) using statistical paired *t*-test and Sign test at the significant level $P \leq 0.05$.

RESULTS

The study showed that knowledge mean score for females in the case group increased from 9.54 (before intervention) to 16.58 (after intervention) and in the control it increased from 10.53 to 13.81. Thus, paired *t*-test showed a significant difference between knowledge mean score of the females before and after intervention in both the groups ($P < 0.001$). Paired *t*-test also revealed a significant difference between total knowledge mean of the case group (7.04) and control group (2.57) [Table 1].

The mean score of the subjects in terms of safe drinking water queries increased from 1.22 (before intervention) to 2.6 (after intervention) and from 1.53 to 2.13 in the case and control villages, respectively; the difference was significant in both the groups ($P < 0.001$).

Concerning baby care and nutrition, the mean knowledge score of the subjects increased from 5.44 (before intervention) to 8.24 (after intervention) and from 5.48 to 7.07 in the case and control groups, respectively. The difference between the two scores in both the groups was significant ($P < 0.001$). Comparing the mean score in the case (2.8) and control groups (1.59) also revealed a significant difference ($P < 0.001$).

The knowledge mean score of cases on the subject of family planning increased from 2.88 (before intervention) to 5.75 (after intervention) and from 3.52 to 4.6 in both case and control groups, respectively; the difference in both was significant ($P < 0.001$). Comparing the difference in the case group (2.87) with the control group (1.08) also showed significance ($P < 0.001$).

With respect to the attitude level of females under study, based on Liker triple measure, the mean score increased from 10.24 (before intervention) to 14.23 (after intervention) and from 9.06 to 11.47 in the case and control groups, respectively; so there was a significant difference between the two steps in both the groups ($P < 0.001$). Comparing the difference in the case group (3.99) with the control group showed significance as well ($P < 0.001$) [Table 2].

DISCUSSION

Volunteer work as a social pretending that represent human roles in helping others and humanity. Relying on community involvement has also confirmed in terms of health attempting, nowadays. Various investigations have shown that these

Table 1: Comparison between knowledge score mean of subjects in case and control groups before and after intervention

	Number	Mean score	Standard deviation	Statistical test results	
				<i>t</i>	<i>P</i> value
Case					
Before intervention	121	9.54	4.01	17.67	0.001
After intervention	121	16.58	4.17		
Control					
Before intervention	94	10.53	3.47	7.43	0.001
After intervention	94	13.83	3.91		

Table 2: Comparison between attitude score mean of the subjects in case and control groups

	Number	Mean score	Standard deviation	Statistical test results	
				<i>t</i>	<i>P</i> value
Case					
Before intervention	121	10.24	2.24	7.28	0.001
After intervention	121	14.23	2.98		
Control					
Before intervention	94	9.06	1.89	4.36	0.001
After intervention	94	11.47	2.02		

attempts would lead to improvement in providing health services.^[15-17] Assessment of general awareness and attitude of rural women under study shows that the mean score of both case and control groups increased from “before intervention” state to “after intervention” state, but the difference between the mean scores of the two groups was significant. This suggests that health volunteers in suburban villages can increase awareness and health attitude level of suburban women.

In a study evaluating the performance of health volunteers conducted by the Ministry of Health Care and Medical Education Health Assistance Department, it was found that volunteers had caused incredible increase in all knowledge and performance indicators. Health volunteers' performance to bring about changes was in accordance with the level of specific knowledge or performance in the community, and where knowledge or performance level was very low, health volunteers had managed to cause outstanding changes.^[9]

Also, in a study conducted by Dr. Almasi and colleagues, it was revealed that health volunteers were effective in increasing awareness of the people and the obtained results are in agreement with those of the present study absolutely.^[11] The study conducted by Dr. Mohammad-Zadeh and colleagues in Lanjan (Zarrin Shahr) showed that health volunteer plan had not been successful in improving health aims after a period of 1.5 years, something which was not in accordance with the finding of the current study.^[10]

Results of the study undertaken in deprived areas of Dublin, titled “Amateur volunteers program for mothers,” showed that volunteers can be greatly useful in providing services such as mothers' guidance, and children's nutrition, immunization, and growth care.^[18]

A study conducted in Haryana state of India showed significant impacts of volunteer counselors on exclusive breastfeeding rates and reduced infant illness. Results of this research showed that 3 months after birth, 79% of infants in the intervention areas were exclusively breastfed, compared with 48% in the control areas. This difference was still significant at 6 months (after which complementary feeds were introduced), with 42% of women in the intervention areas exclusively breastfeeding, compared with 4% in the control areas.^[19]

Phomborhub study in Thailand showed that village health volunteer performances in TB case detection were comparable to those in health center and of hospital staff.^[14]

CONCLUSION

Based on the findings of the present study and the positive effect of health volunteers' plan in suburban villages on female villagers' knowledge and attitude and the fact that

those who are under health care of health centers in the villages, particularly women, for reasons such as distance are rarely able to receive the necessary health care and instruction, this study as a pilot one showed that health volunteers of suburban villages are very valuable in the improvement of village women's knowledge and, as a result, their performance. So, it is suggested that in all rural health centers, the plan must be put into action.

ACKNOWLEDGMENTS

Financial support of Birjand University of Medical Sciences is acknowledged. The authors would like to thank all the health volunteers and women who participated in this study.

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Source of Support: Birjand University of Medical Sciences. **Conflict of Interest:** None declared