Evaluation of the Performance of the Health Care Workers in Giving Consultation about the Fertility Promotion

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A R T I C L E I N F O	**A B S T R A C T**
Article type: Original article *Article History:* Received: 05-Dec -2015 Accepted: 09-Apr -2016 *Key words:* Counseling Fertility Health care workers Performance Self-assessment	***Background & aim:*** Counseling is the first and most important tasks of the health care providers. The aim of this study was to evaluate the performance of the midwives and health care providers in the healthcare centers affiliated to the Mashhad University of Medical Sciences in giving consultation about the fertility promotion. ***Methods***: This cross-sectional study was conducted on 107 midwives and health care providers working in the midwifery, maternal-child, and family planning units of the health centers and community health centers in Mashhad, Iran in 2015. The subjects of the study were selected using the stratified and cluster sampling methods. The data collection was performed using an observation checklist and a self-assessment questionnaire. The data were analyzed using the descriptive statistics, independent t-test, one-way ANOVA, Chi-square test, and Pearson correlation coefficient through the SPSS version 16. ***Results:*** According to the results of the study, the mean performance of the health workers in fertility counseling was 21.2±12.5 out of 79, which represented a weak level in this regard. The counseling performance had a significant relationship with the education, age of marriage, and husband's job (P<0.05). In addition, the mean fertility counseling performance score obtained from the self-assessment was 30.7±3.3 out of 36, indicating a good performance. ***Conclusion:*** Based on the results obtained from the observation checklist, the fertility promotion counseling performance of most of the participants was at a poor level. However, the results of the self-assessment demonstrated that the majority of the participants had a good level of counseling performance in this regard. Regarding this, it is essential to train the counseling skills to the midwives and health care providers according to the country's new policies in terms of fertility promotion.

Introduction

Counseling is an activity in which the counselor's assistance empowers the consulter and enables them to find the solution to their problems. Accordingly, after the end of counseling sessions, the consulter is able to apply the earned capabilities in solving the future problems (1). Given the fertility decline observed in Iran in the recent years, the need to enhance the fertility counseling services is undeniable. Reproductive health denotes that the people have reproduction capability and freely and consciously decide about the time and frequency of their childbearing (2).

In the last 25 years, Iran has experienced drastic and unprecedented changes in the fertility rate (3). Today, the reduced population growth is seriously considered as a global problem in some countries including Iran, Japan, France, Germany, Korea, etc. This issue would result in many problems in the coming years if it is attended to (4, 5).

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Careful counseling facilitates solving many problems related to fertility. The quality of counseling can be significantly improved by applying the principles of information, education, and communication (6). The counselor should be a person who is interested in the communicating and working with people; furthermore, he/she should be fully aware of the importance of fertility planning and its benefits (7).

Regarding the significance of counseling in fertility planning, the counselor has an important responsibility and should acquire the necessary skills before giving consultation (8). The health care is a part of the public health (9). The health care workers as the primary providers of health care services are at the first-line of relationship with the people and has the role of educating and counseling health services (10). Therefore, their performance is an important factor in developing the social welfare and health level (11).

Today, the assessment of the performance of the health care providers has become a very important issue, which should be evaluated from different aspects (12). Hill Briggs reported that the performance of the health workers in providing the educational services was inappropriate (13). In a study conducted by Abdullahi (2004), the evaluation of the health employees in terms of the counseling performance and training about the consumption of folic acid at childbearing age was reported to be moderate (14). Likewise, Zare demonstrated that the performance of the health staff in training the clients of health centers was at an appropriate and acceptable level (12).

There are multiple studies focusing on the evaluation of the employee performance in providing the associated services and trainings. However, limited studies have investigated the employee performance in providing counseling services. The provision of health care services constitutes a large part of the staff duties. Regarding the needs of the community to reproductive health promotion, the assessment of the staff performance in providing fertility counseling is an important approach to promote fertility.

Observation is the common method for measuring the employee performance, which is used in multiple studies. Since the employees have a better understanding of their strengths and weaknesses, the use of the self-assessment is an appropriate and reasonable way to evaluate the individuals' educational abilities from their own perspectives (15). The previous studies have emphasized that the health workers' self-assessment and its comparison with the actual performance can be helpful in different ways.

Accordingly, these assessments can be as a source for comparing the performance of different units. Some of other benefits of this measure includes the identification of the reasons of weak or strong performance, provision of feedback to the respective managers, improvement of employees' participation, enhancement of employees' professional capabilities, helping to set the priorities, and assisting in such decision-makings as sustaining or stopping the respective activities or programs (16, 17).

With this background in mind, this study was performed to determine the performance of the health workers of Mashhad University of Medical Sciences in giving consultation about the promotion of fertility using the observation and self-assessment methods in 2015.

Materials and Methods

This cross-sectional study was conducted on 107 employees working in the health centers and community health centers of Mashhad, Iran in 2015, who were selected through clustering method. The health care centers number 2, 3, and 5 were randomly selected out of five health centers. In the next step, 18 health centers and community health centers, which were covered by these three centers were selected as the clusters.

The inclusion criteria were: 1) a work history of at least six months in the health centers, 2) working in the midwifery, maternal-child, and family planning units, 3) working voluntarily, 4) having a degree in midwifery, family health, or public health (associate, bachelor's, or master's degrees). On the other hand, the subjects, who were unwilling to participate in the study, or those who were exposed to major stressful events during the study, were excluded from the study.

The data were collected using a researcher-made observation checklist and a counseling performance self-assessment questionnaire. The researcher obtained the approval of the University Research Ethics Committee and performed the necessary coordination. Subsequently, the consu-

lting performance of the health workers was observed and recorded by the researcher (n=107).

The observation checklist, which was used to record the performance of health workers in providing reproductive health consultation, contained 48 items and included the observable behaviors. Out of the 48 items, 5, 3, 6, 15, 5, 3, 8, and 3 items covered the nonverbal communication, verbal communication, how to observe the process and content of fertility counseling, the questions/problems/objectives of the consuler for seeking fertility consultation, dialogue and interaction on fertility, the way of solving the problems, managing the counseling session, and evaluating the counseling session.

This checklist was rated on a three-point Likert scale (yes=0, somehow=1, no=2), which was completed by the researcher. Based on the scores obtained from this checklist, the subjects were divided into three groups, including weak (score of ≤39.99), moderate (score of 40-59.99), and good (score of ≥60) with the maximum score of 79.

The counseling performance of the health workers were investigated from their perspective using a self-assessment questionnaire. This questionnaire was obtained from a book on family planning advice, which was compiled by the Ministry of Health, Treatment, and Medical Education, and the United Nations Population Fund. Out of the 107 questionnaires, 3 cases were eliminated due to incomplete filling. This questionnaire consisted of 12 items, which was completed by the subjects. This instrument was rated on a three-point Likert scale (yes=1, somehow=2, no=3).

Based on the scores obtained from this questionnaire, the subjects were divided into three groups, including weak (score of ≤17.99), moderate (score of 18-26.99), and good (score of ≥27) with a maximum score of 36. The validity of the checklist and questionnaire was evaluated using the content validity method. The questions were prepared in accordance with the subjects of the study using several books and journals. To validate the content of these questions, they were evaluated by the professors of gynecology, reproductive health, and medical training.

Subsequently, the content validity ratio and content validity index of the questionnaire and checklist were calculated, and they were finalized. Cronbach's alpha coefficient was used to determine the reliability of the study instruments, which rendered Cronbach's alpha coefficients of 0.68 and 0.95 (for questionnaire and checklist, respectively).

Before filling out the questionnaires and checklists, the objectives of the study and confidentiality of the data were explained to the heads of the centers. The data were collected by the researcher, who was present at the time of providing counseling services to the consuler. The data were analyzed by the SPSS version 16 using the descriptive statistics (i.e., mean, standard deviation, and frequency distribution), independent t-test, one-way ANOVA, Chi-square test, and Pearson correlation coefficient. The p-value less than 0.05 was considered statistically significant.

Results

According to the results of the present study, the majority of the subjects (n=52, 48.6%) were within the age range of 31-41 years. In addition, 69 cases (64.5%) were married, and most of them had one to two children (43%). As the results demonstrated, 61 participants (57%) were working as contractors. The majority of the subjects (n=75, 70.1%) stated that they were not familiar with new fertility policies and did not pass special training in this field. Furthermore, 30 (28%) and 35 (32.7%) cases were working in the midwifery and maternal-child/family planning units, respectively. Additionally, 42 (39.3%) subjects had multiple jobs.

Table 1. Frequency distribution of the scores of the health workers' fertility promotion counseling performance using self-assessment and observation

	N	%
Counseling performance status		
Poor (≤39.99)	98	91.6
Moderate (40-59.99)	8	7.5
Good (≥60)	1	0.9
Self-assessment of counseling performance		
Moderate (18-26.99)	11	10.3
Good (≥27)	93	86.9

The results showed that 98 health workers (91.6%) had poor and inappropriate fertility counseling performance. Based on the results of the self-assessment, 93 (86.9%) health workers

Table 2. Mean and standard deviation of health workers' fertility promotion counseling performance using self-assessment and observation

	Mean±SD	N
Self-assessment scores of counseling performance	30.7±3.3	104
Observation scores of counseling performance	21.2±12.5	107

had good and appropriate counseling performance in this regard (Table 1). The mean scores obtained from the self-assessment questionnaire and observation checklist were 30.7 and 21.2, respetively (Table 2).

Table 3. The mean score of fertility promotion counseling performance of health care workers based on personal characteristics

Variables		N (%)	Mean±SD Median	Test result
Age		106(99.06)	34.1±7.1	F=0.8 P=0.44
Duration of graduation		107(100)	19.00(17.00)	r=0.02 P=0.83
Duration of marriage		71(66.35)	10.4±7.3	F=1.08 P=0.34
Age at marriage		71(66.35)	24.6±3.6	F=0.33 P=0.01
Number of children		69(64.48)	19.00(17.00)	r=0.06 P=0.62
Number of sisters		103(96.26)	2.3±1.6	F=1.13 P=0.32
Number of brothers		103(96.26)	19.00(17.00)	r=0.08 P=0.40
Number of sister-in-law		69(64.48)	19.00(17.00)	r=0.15 P=0.21
Number of brother-in-law		69(64.48)	19.00(17.00)	r=0.17 P=0.14
Working history (month)		105(98.13)	19.00(17.00)	r=0.07 P=0.43
Education level	Associate degree	5(4.7)	35.60±9.93	t=2.69 P=0.008
	Bachelor's degree and above	102(95.3)	20.53±12.28	
Marital status	Married	69(64.5)	19.98±12.34	t=1.40 P=0.16
	Single	38(35.5)	23.52±12.77	
Unit of working	Midwifery	30(28.0)	21.10±13.24	F=0.08 P=0.91
	Maternal-child and family planning	35(32.7)	21.94±11.07	
	Other units	42(39.3)	20.76±13.46	
Field of education	Midwifery	62(57.9)	21.56±12.63	F=0.08 P=0.91
	Family health	7(6.5)	22.00±13.86	
	Public health	38(35.5)	20.57±12.50	
Residency status	Rental	38(35.5)	20.60±15.70	F=1.52 P=0.22
	Owner	43(40.2)	19.60±9.69	
	Living with parents	26(24.3)	24.88±11.23	
Income level	Enough	89(83.2)	21.02±11.44	F=1.22 P=0.29
	Less than enough	15(14.0)	24.33±17.95	
	More than enough	3(2.8)	12.33±12.05	
History of disease	Yes	10(9.3)	26.60±17.20	t=1.42 P=0.15
	No	97(90.7)	20.69±11.95	
Type of employment	Formal employment	45(42.5)	20.51±10.79	t=0.74 P=0.48
	Contractual employment	61(57.5)	27.00±20.79	
Familiarity with fertility promotion counseling	Yes	31(29.2)	20.48±11.31	t=0.42 P=0.67
	No	75(70.8)	21.62±13.15	

The results of the Pearson correlation test showed no significant correlation between the

fertility promotion counseling performance scores obtained from the self-assessment and

observation (r=0.20). In other words, the subjects who obtained a higher counseling performance score in the self-assessment did not necessarily have better counseling performance score in the observation method.

According to table 3, the health care workers

with the associate degree (35.60±9.93) had better counseling performance than those with bachelor's degree (20.53±12.28; P=0.008). Furthermore, the results of the correlational analysis demonstrated a direct and significant

Table 4. Regression of the fertility promotion counseling performance of the health care workers

Variables		B	SD	Confidence interval		P-value
				Upper limit	**Lower limit**	
Education level	Associate degree	36.66	5.55	25.77	47.54	>0.001
	Bachelor's degree or above	22.35	1.96	18.49	26.21	>0.001
Marital status	Married	3.52	2.40	8.23	1.17	0.14
	Single	0[a]				
History of disease	Yes	5.28	3.96	2.47	13.04	0.18
	No	0[a]				

Discussion

In the current study, the fertility promotion counseling performance of the health workers were evaluated using the self-assessment and observation methods. Based on the results obtained from the observation checklist, the fertility promotion counseling performance of most of the participants was at a poor level. However, the results of the self-assessment demonstrated that the majority of the participants had a good level of counseling performance in this regard.

As inferred from the findings of this study, the performance of the health workers was affected by many factors. Although the healthcare workers are aware of the importance of the fertility counselling, they have difficulty in applying its correct principles due to various reasons. These reasons include the limited number of staff as compared to the large number of consulters in the health centers, the inappropriate environment for performing a private counseling (i.e., the accommodation of several health care staff in the same room), and the health workers' insufficient knowledge about the principles of counseling.

In this regard, a study conducted by Baghernejad Hesari (2012) noted a lack of resources and facilities for training the health staff. Furthermore, they stated that for the optimal use of limited resources, the limitations and the training needs of the health staff should be identified (18). In a study carried out in Rafsanjan, Iran, Salem et al. (2005) assessed the knowledge, attitude, and performance of the health care workers regarding the family planning. They

reported that the performance of 87.5% of the participants was good (19). This result is in line with our findings, which is due to the fact that the mentioned study was descriptive and the subjects completed a self-assessment performance questionnaire like the present study.

Zare et al. (2013) evaluated the performance of the health care workers in training the health centers' clients and employees in Mashhad and reported that their performance was appropriate and acceptable, which is inconsistent with the results of present study. The reason for this discrepancy could be ascribed to the fact that Zare et al. focused on training, and they did not investigate the principles of counseling performance in a particular domain, such as fertility consultation (12). There are other studies in which the performance of the health workers in different areas was reported to be poor. In a study, Rowe et al. (2005) evaluated the performance of the health workers and reported it to be at an inappropriate level (20).

In another study, Mkopi et al. (2013) indicated the necessity to modify the performance of the health workers in Tanzania, which is consistent with the results of present study (21). Furthermore, Bayrami et al. evaluated the performance of the health workers in Khoy, Iran and reported that the performance of 75% of the family health experts was at a poor level (22). Regarding these studies, it can be stated that better performance is facilitated through increasing the employees' awareness and changing their attitudes. Therefore, to improve the health care workers' performance, we should

raise their awareness by holding some training programs to change their attitudes.

Barati et al. investigated the training performance of the health care staff in terms of the communication skills, feedback, and listening skills. They reported that the performance of the majority of the staff was at an appropriate level, which is not consistent with the results of the present study (23). This disagreement was due to the fact that in the mentioned study, the communication skills were partially examined; however, in the present study, we assessed the total counseling process, which embodies the communication skills.

In the current study, the comparison of education level with counseling performance revealed that the education level had a negative effect on the counseling performance of the subjects. In other words, the counseling performance of the people with the associate degree was significantly better than those with other degrees (P=0.008). In this regard, Kiyanian et al. (2014) investigated the educational ability of the health center staff in training the clients using self-assessment and consulters' assessments.

They reported a significant difference between the staff's self-assessment and observation scores that is consistent with the results of this study (24). It demonstrated that the ability of the staff with associate degree in different units, such as vaccination, maternal-child and midwifery, was considerably better than the ability of individuals with other levels of education (P<0.001).

Nevertheless, a study by Salem et al. showed that the education level had a direct relationship with performance, i.e., people with bachelor's degree had better performance (19). In addition, in this study, the results of the correlation test showed direct and significant relationship between the scores of the fertility promotion counseling performance of the health workers and the marriage age (P=0.01). In other words, the health care workers who were married at an older age had better counseling performance.

In this study, the performance of the employees in fertility counseling was associated with husband's job (P=0.04). Therefore, the employees whose husbands were employed had better performance in providing fertility counseling. Nonetheless, no study was found to confirm this finding. This relationship may be due to the fact that the people whose husbands are employed should consider more criteria for different planning, including childbearing, and that they should be more accurate in this regard; therefore, they apply this trend during their fertility counseling process and act with greater sensitivity.

According to the scores obtained by the two methods of self-assessment and observation, it is recommended that the officials, managers, and health monitoring groups use both direct and self-assessment methods to assess the employees' performance.

The strength of this study was the employment of both self-assessment and observation methods, which facilitated the comparison of the employees' self-assessment with what is performed in practice. On the other hand, the imitation of this study was the large number of the consulters, high workload, and presence of the researcher. However, these factors could not be controlled.

Conclusion

According to the observational data, the fertility promotion counseling performance of the health workers and community health center workers were at a poor level, which had a significant difference with the results of the self-assessment in this regard. This finding indicated the need of training these employees to promote their fertility counselling performance. Therefore, given the country's policies in terms of the fertility promotion and considering the important role of the health staff as consultants and providers of these services, it is recommended to pay more attention to training the counseling principles to the providers of fertility services and improve their skills.

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Conflicts of interest

All the authors declare no conflicts of interest.

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