

## Knowledge and Attitude of Staff Working in Healthcare Centers Regarding Childbearing

Raziye Rahmati (MSc)<sup>1</sup>, Talat Khadivzadeh (PhD)<sup>2,3\*</sup>, Habibollah Esmaily (PhD)<sup>4,5</sup>, Hamid Reza Bahrami (PhD)<sup>6</sup>

<sup>1</sup> Graduate, Master of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad

<sup>2</sup> Assistant Professor in Reproductive Health, Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>3</sup> Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>4</sup> Professor in Biostatistics, Social Determinants of Health Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>5</sup> Department of Epidemiology and Biostatistics, School of Health, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>6</sup> Associate Professor, Department of Chinese Medicine, School of Iranian Traditional medicine, Mashhad University of Medical Sciences, Mashhad, Iran

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### ABSTRACT

**Background & aim:** Knowledge and attitude of healthcare providers have an important role in the success of fertility-related programs. In this regard, the present study was conducted to determine the knowledge and attitude of midwives and family healthcare providers working in community health centers of Mashhad, Iran, regarding childbearing in 2015.

**Methods:** This cross-sectional study was conducted on 108 health staff working at 18 health and treatment centers and 23 community health centers in Mashhad. The study population was selected by multi-stage random sampling technique. The data were collected by means of the childbearing knowledge and attitude questionnaires. Data analysis was performed in SPSS software (version 16) using descriptive statistics, as well as simple and multivariate correlation tests.

**Results:** The mean scores of knowledge and attitude toward childbearing were obtained as  $12.8 \pm 1.36$  (out of 16) and  $166.4 \pm 19.9$  (out of 235) i.e. at good and moderate levels, among the healthcare providers, respectively. The healthcare providers' knowledge about childbearing showed a significant relationship with age ( $P=0.001$ ), duration of study ( $P=0.00$ ), duration of marriage ( $P=0.00$ ) and work experience ( $P=0.001$ ). Attitude toward childbearing was also significantly associated with all mentioned variables ( $P<0.05$  for all cases). However, there was no significant relationship between attitude toward childbearing and health providers' knowledge.

**Conclusion:** Midwifery and family healthcare providers play a critical role in the enhancement of clients' knowledge and improvement of their attitude about childbearing. As their efforts would finally result in favorable changes in the rate of childbearing in the community. Thus, it is suggested to implement educational programs to enhance knowledge and attitude of healthcare providers to be able to promote childbearing in the society.

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## Introduction

Counseling is one of the most appropriate health interventions to raise the knowledge and attitude of clients (1). As a contributing factor, counseling facilitates the relationship

between counselors and clients. This practice leads to better conceptualization of the clients' characteristics and improvement of the decision-making process in life in a more

\* Corresponding author: Talat Khadivzadeh, Associate Professor in Reproductive Health, Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran, Mashhad University of Medical Sciences, Mashhad, Iran. Tel: 00989153152455; Email: khadivzadeht@mums.ac.ir

reasonable and appropriate manner (2). Planning reproductive health programs, especially the ones designed for promoting childbearing, requires the actual participation of people. This participation of the community in such programs is relevant to the level of awareness and knowledge about the need for such program (3).

The Action Plan for the Population and Development Conference in Cairo (1994) stated that all human should achieve the highest level of information (4). The provision of information and education is the main strategy for changing the dominant fertility discourse of society, which has had a clear effect on the fertility behavior of couples in recent years (5). Provision of reproductive health cares, especially family planning services and counseling on healthy fertility, is one of the important skills that midwives ought to acquire for the delivery of pertinent services.

Reproductive health means that people have freedom to choose, reproduce, and decide on the time and frequency of their childbearing (6). There are many individual factors, such as attitude, motivation (7-8), as well as social and environmental factors (e.g., economic status and cultural and population policies) which can influence the fertility preferences and behaviors in the society (9-13).

For many years, healthcare staff has played a significant role in fertility-related programs. They have been mostly providing education and counseling for clients toward the aim of family planning programs (5). In recent years, along with changes in population policies in Iran, many actions have been taken to increase the rate of fertility in the society. Therefore, the role of healthcare providers is to promote attitudes and provide family planning counseling and services in line with the new population policies of the country. The achievement of this goal requires training and changing the attitudes of health providers to enable them to inform and persuade families about the healthy childbearing (5, 11).

However, there was not enough education for providers with the aim of improving their attitude toward childbearing and promote their skills in this regard. The Office of Population, Families, and School Health planned some

Interventional programs in order to increase the overall fertility rate and promote childbearing. In this regard, the emphasis was placed on staff training about reproductive health rights, improving the quality of counseling services, reviewing the fertility health program indicators, and upgrading the present educational contents (14). Improvement of performance, knowledge, and attitude of the women employed at health centers and medical sciences universities will result in the modification of clients' performance as they act as role models and reliable sources of information for the public (11, 15).

Awareness of reproductive health can be developed using various sources, including newspapers and mass media. However, healthcare workers play a leading role in raising public knowledge in this regard (3,11). In Iran, the midwifery and health staff can make a significant contribution to enhance educational programs. The enhancement of consciousness level and positive attitude towards the program in this group results in a higher impact on the society (16). Accordingly, our previous study showed that the performance of health providers was poor in counseling with the childbearing promotion approach due to their poor knowledge and attitude toward childbearing (17).

With this background in mind, the current study was conducted to determine the knowledge and attitude of midwives and health care providers about childbearing in Mashhad University of Medical Sciences, Mashhad, Iran, in 2015.

## Materials and Methods

This cross-sectional study was conducted on 108 multi-profession midwives and family health providers with at least 6 years of work experience in midwifery, maternal, and child health and family planning units in health and treatment centers and community health centers. For this purpose, three out of five districts health centers in Mashhad, including districts No. 2, 3, and 5 were randomly selected. In the next step, 18 health and treatment centers and 23 community health centers covered by these three district centers were randomly chosen as clusters and all their eligible working midwives and health providers were entered

the study.

All subjects were able to work with the computer and Internet. They had BSc or MSc degrees of midwifery, family health, or public health. The data collection tools included demographic characteristics form, and two questionnaires for assessing the knowledge and attitude.

The knowledge assessment questionnaire was a researcher-made tool, including eight items. The subjects selected their responses out of two options of 'Yes' or 'No'. The correct answer was given two scores, whereas the wrong ones were assigned a score of one. Based on the obtained scores and a maximum score of 16, the knowledge scores of  $\leq 8$ , 8.1-12, and  $\geq 12.1$  were regarded as indicating weak, moderate, and good levels, respectively. The validity of this questionnaire was assessed and confirmed by seven teachers of reproductive health, midwifery, and nursing disciplines.

The participants' attitude was assessed by filling out the Attitude to Childbearing Questionnaire. The items of this questionnaire were generated based on the results of a qualitative study performed by Khadivzadeh et al. (2013) on the process of forming fertility decisions among the Iranian couples (18). This instrument includes 47 items rated on a five-point Likert scale (i.e., strongly agree=1, agree=2, no idea=3, disagree=4, strongly disagree=5). Based on the scores obtained from the questionnaire, attitude scores of  $<118$ , 118-178, and  $>178$  were indicative of weak, moderate, and good levels, respectively. The maximum score of this research instrument was 235.

The validity of the questionnaire, was approved by twelve faculty members from the midwifery, reproductive health, nursing, and psychology disciplines. After applying their comments, the content validity ratio and content validity index were calculated, and the tool's content validity was confirmed (19).

The reliability of the attitude questionnaire was estimated using the Cronbach's alpha coefficient of 0.89. Before filling the questionnaires, the purpose of the research and the confidentiality of the information were explained to the heads of the health centers and health care staff. The subjects were

entered the study based on inclusion criteria.

### Statistical analysis

The data was analyzed using SPSS software (version 16) and presented as mean, standard deviation and frequency. The comparison of the quantitative and qualitative data between the two groups was done using the independent t-test and Chi-Square test, respectively. Pearson and Spearman correlation coefficient tests were also applied to show the relationship between quantitative data. p-value less than 0.05 was considered statistically significant.

### Results

The results of the study showed that 52 (48.6%) participants were in the age range of 31-40 years. Furthermore, 69 (64.5%) cases were married, and most of them (43%) had 1-2 children. In terms of employment status, 61 (57%) participants were employed as contractors and 42 (39.3%) cases were working as multi-profession. In addition, 75 (70.1%) subjects stated that they were not familiar with the new policies on fertility control and had not completed a specific course in this regard.

According to the results, 70 (65.4%) health workers had a good level of knowledge (Table 1) and regarding the attitudes toward childbearing, 75 health workers (70.1%) had a moderate attitude (Table 1). The mean scores of health workers' knowledge and attitude about childbearing were obtained as  $12.86 \pm 1.36$  and  $166.45 \pm 19.99$ , respectively. The subjects' knowledge showed a significant correlation with their age, duration of study, duration of marriage, and work experience (Table 2).

**Table 1.** Scores of knowledge and attitude about the childbearing among the staff of health and treatment centers and community health centers

Level	Knowledge %	Attitude toward fertility
Weak	0.9	0.9
Moderate	32.7	70.1
Good	65.4	29.0
Unknown	0.9	-
Total	99.1	100

**Table 2.** Correlation of knowledge and attitude scores with other variables

Variable	Mean±SD	Correlation		n (%)
		Knowledge	Attitude	
Age	34.1±7.1	r= 0.31 P=0.001	r= 0.13 p= 0.17	106 (99.06)
Duration of study	13.0±10.1	r= 0.33 P=0.00	r= 0.11 p= 0.25	107 (100)
Duration of marriage	10.4±7.3	r=0.41 P=0.00	r=0.8 p=0.46	71 (66.35)
Number of children	1.2±1.2	r=0.32 P=0.007	r=0.007 p=0.95	69 (64.48)
Occupational experience (months)	13.0±10.1	r=0.33 P=0.001	r= 0.20 p=0.03	105 (98/13)

**Table 3.** Responses of staff of health and treatment centers and community health centers to the items of the Attitude toward Childbearing Questionnaire

	Strongly disagree		Disagree		No idea		Agree		Strongly agree	
	%	N	%	N	%	N	%	N	%	N
Generation continuity is an important purpose of human creation.	56.1	60	36.4	39	3.7	4	2.8	3	0.9	1
Having a child is an innate human need.	0.0	0	0.0	0	0.9	1	35.5	38	63.6	68
The parents with children will not stay alone when aging.	0.0	0	8.4	9	6.5	7	42.1	45	43.0	46
Having a child will strengthen the marital relationship.	0.9	1	11.2	12	13.1	14	46.7	50	28.0	30
The child is the source of financial and emotional support for parents during old age.	0.9	1	17.8	19	14.0	15	51.4	55	15.0	16
More childbearing is needed to increase the number of Muslims.	0.9	1	20.6	22	18.7	20	35.5	38	24.3	26
Each child is a labor force for the family.	2.8	3	32.7	35	30.8	33	28.0	30	4.7	5
Boys can support their families.	2.8	3	29.9	32	34.6	37	26.2	28	5.6	6
Girls can give the parents more affections.	1.9	2	4.7	5	15.0	16	47.7	51	30.8	33
Having a child increases the sense of responsibility in parents.	0.0	0	2.8	3	5.6	6	44.9	48	46.7	50
Children are the cause of happiness in the family.	0.0	0	0.0	0	4.7	5	47.7	51	47.7	51
The birth of a new child brings about renewal and vitality in life.	0.0	0	3.7	4	11.2	12	51.4	55	33.6	36
Having a child gives humans motivation to live.	0.0	0	3.7	4	3.7	4	51.4	55	41.1	44
Having a child encourages the parents to do more works.	0.0	0	1.9	2	4.7	5	53.3	57	40.2	43
Having a child completes the family structure.	0.0	0	2.8	3	8.4	9	51.4	55	37.4	40
Interaction with the siblings can grow children's social and communicative skills.	0.0	0	0.0	0	2.8	3	46.7	50	50.5	54
With more childbearing, each person can have more relatives.	0.0	0	5.6	6	11.2	12	45.8	49	37.4	40
Having more children increases the parents' adherence to life.	14.0	15	30.8	33	15.0	16	27.1	29	13.1	14
Having more children reduces the possibility of divorce.	10.3	11	34.6	37	25.2	27	24.3	26	5.6	6
To reduce the pressure of others, it is better for couples to have more children.	14.0	15	28.0	30	34.6	37	13.1	14	10.3	11
To reduce the pressure of others, it is better for couples to have fewer children.	19.6	21	25.2	27	44.9	48	8.4	9	1.9	2
			<b>Strongly disagree</b>	<b>Disagree</b>	<b>No idea</b>	<b>Agree</b>	<b>Strongly agree</b>			

	%	N	%	N	%	N	%	N	%	N
Delay in childbearing leads to the stigmatization of couples with infertility.	3.7	4	12.1	13	20.6	22	53.3	57	9.3	10
Advice for childbearing by religious authorities are important to me.	13.1	14	20.6	22	34.6	37	20.6	22	11.2	12
Educated people do not agree with increasing fertility.	2.8	3	18.7	20	14.0	15	51.4	55	13.1	14
Higher education reduces the need for a child.	6.5	7	43.9	47	14.0	15	28.0	30	7.5	8
Having income and social participation reduces the need for having a child.	5.6	6	40.2	43	16.8	18	31.8	34	4.7	5
Having fewer children represents a higher social prestige.	15.0	16	43.9	47	16.8	18	18.7	20	5.6	6
People with many children pay less attention to their education.	8.4	9	45.8	49	9.3	10	29.0	31	7.5	8
I blame people for having a lot of children.	15.9	17	56.1	60	15.9	17	10.3	11	1.9	2
I am worried about the aging population of the country in the future.	0.9	1	3.7	4	19.6	21	57.9	62	17.8	19
I am worried about the security of the country following low fertility.	0.9	1	10.3	11	20.6	22	48.6	52	19.6	21
Children increase the parental workload and psychological stress.	0.9	1	26.2	28	14.0	15	45.8	49	13.1	14
With fewer children, the quality of upbringing can be increased.	4.7	5	29.9	32	17.8	19	32.7	35	15.0	16
Education is more important than having a child for parents.	15.0	16	54.2	58	13.1	14	12.1	13	4.7	5
Job maintenance is more important for women than having a child.	17.8	19	46.7	50	18.7	20	11.2	12	5.6	6
The child acts as a commemorator after a parents' death.	0.0	0	4.7	5	13.1	14	47.7	51	34.6	37
Each pregnancy and childbirth is associated with great fear and concern for the mother.	6.5	7	26.2	28	13.1	14	40.2	43	14.0	15
Pregnancy and childbirth reduce the woman's attractiveness and lead to premature aging.	6.5	7	32.7	35	15.9	17	36.4	39	8.4	9
In each condition, having two children is enough.	9.3	10	39.3	42	19.6	21	22.4	24	9.3	10
In today's society, no one is valued for being a mother.	13.1	14	58.9	63	12.1	13	13.1	14	2.8	3
Having a child disturbs parents' tranquility.	16.8	18	48.6	52	14.0	15	16.8	18	2.8	3
Having a child causes loss of fun and recreational opportunities.	15.0	16	47.7	51	13.1	14	22.4	24	1.9	2
Children reduce the mother's social relationship.	11.2	12	54.2	58	10.3	11	22.4	24	1.9	2
With growing rate of childbearing, poverty increases in the community.	7.5	8	40.2	43	26.2	28	19.6	21	6.5	7
Due to the high cost and inflation in the community, childbearing should be reduced.	4.7	5	30.8	33	24.3	26	31.8	34	8.4	9
With having more children, the parents cannot have their own desired life.	5.6	6	32.7	35	17.8	19	37.4	40	6.5	7
Children bring their own livelihood with themselves.	3.7	4	8.4	9	16.8	18	51.4	55	19.6	21

Table 3 presents the frequency of responses to the items of attitude questionnaires.

The results of Pearson correlation test showed no significant relationship between knowledge about the childbearing and attitude toward it ( $p=0.62$ ). In this regard, people with higher knowledge did not necessarily have a more positive attitude toward childbearing.

The results of the correlation test showed a significant direct relationship between the attitude scores of health care staff and the work experience ( $P=0.03$ ). Accordingly, health workers who had less work experience had a more positive attitude toward childbearing. Moreover, there was a significant relationship between and the source of information ( $P=0.03$ ). In this respect, the health staff stated that television would be the most important source of receiving knowledge on childbearing consistent with new policies.

On the other hand, the level of knowledge had no significant relationship with the field of academic education, occupational experience, level of higher education, marital status, spousal job, spousal education, paternal education, maternal education, place of residence, level of income, and type of employment. Furthermore, the level of attitude demonstrated no significant relationship with occupational experience, field of academic studies, level of higher education, spousal job, spousal education, maternal education, paternal education, place of residence, level of income, and type of employment.

## Discussion

The current research was targeted toward the investigation of the knowledge and attitude of health workers about the childbearing. The results of this study showed that the participants had a good level of knowledge about this issue. On the other hand, the attitude toward childbearing was at a moderate level in most of the subjects.

The maximum and mean scores of knowledge in this study were 16 and  $12.86\pm 1.36$ , respectively. This indicates that the knowledge of healthcare staff was at a good level. This finding is probably due to sufficient information and presence of necessary information resources in the field of childbearing as it is an important topic among the other health issues. In the present study,

television was the main source of information reflecting the role of the national media. This finding may be due to the lack of sufficient scientific resources especially books in this regard.

Salem et al. performed a study in Rafsanjan city, Iran, (2007) to assess the knowledge, attitude, and practice of healthcare staff about family planning. They showed that 82.2% of the employees had a good level of knowledge about family planning, which is consistent with the country policies at the time of study (3). The reason for these results can be explained by the health education and advices that have been taught to the staff in the past decades through in-service education and media, especially television, with a focus on contraceptive and family planning methods.

The results of the study conducted by Rahimikian et al. (2007) with the aim of assessing the effect of a training program about the emergency contraceptive methods on knowledge and attitude of health staff working in health care centers showed that most of the subjects (45.5%) had a poor level of knowledge about contraceptive methods before the intervention (20).

There are some other studies that showed no ideal levels of knowledge on health issues among health staff. Abdollahi (2005) demonstrated that 64.8% and 20.1% of the participants had moderate and good levels of knowledge about folic acid administration, respectively. Furthermore, they reported that a higher level of knowledge was attained through counseling during pregnancy (21). The researcher stated that success in health interventions depends on the knowledge of health professionals about its importance and their willingness to transmit this information to mothers.

In another study performed by Khani et al. (2008), the results indicated that health workers' knowledge about breast cancer prevention programs were at a moderate level (22). It seems that in the study of Khani, health workers were less aware of the benefits of screening for breast cancer when it is asymptomatic. This unawareness may be due to the lack of sufficient scientific resources about such important issues.

In this study, the mean score of attitude toward childbearing was  $166.45 \pm 19.96$  (out of 235) signifying that most of the health workers had moderate attitudes in this regard. The study of Salem et al. showed a good level of employee's attitude toward family planning. It should be noted that the aim of family planning programs in the past decades was to promote contraceptive methods, which is totally in contrast with the aims of new action plans focusing on healthy fertility promotion (3). Enhancement of knowledge can change and improve the attitude (23). The results of a study carried out by Rahimikian et al. (2007) showed that the attitude of a high percentage of subjects (47.4%) toward contraceptive methods was not at an ideal level before training (20). In the mentioned study, the attitude was correlated with the subjects' knowledge.

In our study, there was no relationship between the levels of knowledge and attitude. Additionally, the level of knowledge showed no significant relationship with academic discipline, occupational experience, level of education, marital status, spousal job, spousal education, paternal education, maternal education, place of residence, level of income, and employment status. Likewise, attitude toward childbearing demonstrated no significant relationship with the mentioned variables.

In a study performed by Direkvand et al. (2011), knowledge was significantly associated with age, occupation, and education of men and their wives (24). In a study carried out by Rahimi-Kiyan et al. (2007), the field of study and the education level were related to the level of knowledge (20). Similarly, in the study of Salem et al., knowledge showed a significant relationship with age and education (3). In general, it can be stated that the variance of knowledge cannot completely change the attitude. In other words, awareness alone is not enough, but there are many other contributing factors that may have a role in attitude formation.

Some of the limitations of the present study include high workload of health staff and the overcrowding of the workplace that may influence their responsiveness as the control of

these factors was not completely possible.

## Conclusion

The findings of this research indicated that the knowledge and attitude of healthcare staff about the childbearing were at good and moderate levels, respectively. Based on the findings of this research, there was no relationship between the knowledge and attitude of health care staffs in this regard. Therefore, considering the importance of fertility in society and the factors affecting attitude, as well as the role of attitudes in the performance of health staff in the field of fertility enhancement, it is essential to design some especial educational programs to improve the attitudes and practice of health workers and community health providers toward healthy childbearing.

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## Conflicts of interest

The authors declare no conflicts of interest.

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