

Original Paper

# Communication Skills of Health Personnel During Reproductive Ages in Pre-Conception Care



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## ABSTRACT

**Introduction:** Suitable communication skills in pre-delivery cares are important due to the effect on the extent of anxiety and to better understand the training given.

**Objective:** This study was conducted with the aim of determining the communication skills of health personnel during delivery of pre prenatal care.

**Materials and Methods:** This cross-sectional study with analytical type was performed in 2012 and 2013 on 360 women who had visited healthcare centers in Mashhad to receive pre prenatal care along with 39 healthcare providers employed in these centers. The sampling was performed as multistage. The data collection instrument included the questionnaire of the characteristics of healthcare providers and research units as well as the checklist of assessing care based on Donabedian model. The data were analyzed using descriptive statistical indices as well as Kruskal-Wallis and Spearman statistical tests.

**Results:** The results indicated that the communication skills of the personnel are of medium level. The minimum skill of the health personnel was observed in preserving the privacy of the service receivers. Other results also indicated that there is a significant relationship between the personnel's attitude toward necessity of prenatal cares ( $P=0.001$ ) and their background in the plan of integrated cares for mothers ( $P=0.024$ ).

**Conclusion:** Based on the results, the minimum skill of health personnel was in preserving the privacy of the service receivers, so holding courses for communication skills is recommended for the health personnel.

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## Introduction

Communication is a dynamic process which is essential to influence, acquire interactive support and gain health, growth and survival [1, 2]. It refers to receiving verbal and nonverbal messages between two or among several people [3]. Communication is the axis of all clinical measures and the basis of medical activity [4], which during consultation is the main determinant for accuracy of the collected data [5]. The ability of establishing communication is one of the essential characteristics of healthcare providers and is one of the most important ways to discover the symptoms and signs of diseases [6]. Accordingly, communication is considered as the basis for the quality of healthcare [7].

Lack of effective communication or communication problems is considered an influential factor in over 50% of all post-operative complications, 70% of all medical errors, and 80% of cases of delay in treatment which causes death or permanent disability [8]. Part of the effects of suitable communication skills in mother cares includes reducing anxiety, controlling pain, positively affecting the physical and psychological status, elevating the awareness level of the mother and their satisfaction with the provided cares [5], shortening the labor period, employing anesthesia, and delivery with improving the baby's fifth minute Apgar [9]. The National Guidelines of England have stated that the main core of improving pregnancy consequences is establishing suitable communication between the mother and healthcare provider [10]. World Health Organization (WHO) has also pointed to suitable communication between the mother to enhance the quality of care from mother and infants [11]. Nevertheless, the results of the study by Taghizadeh [12] alongside Khadivzadeh [9] in this case suggest medium level of communication skills among midwives participating in their research.

One of the mother care services that is offered by Iranian's healthcare personnel as the plan of integrated care for mothers is preconception care. Currently, implementing preconception care plans has been recognized as essential due to developing a golden opportunity for intervention and identifying the risk factors for preventing the complications of pregnancy and delivery [13]. This is because if these interventions do not occur before the pregnancy, there would be no sufficient opportunity and time to eliminate or mitigate some of the maternal complications of pregnancy. Hence, the chance for women to enjoy a complication-free pregnancy and have a healthy baby [14, 15]. As communica-

tion skills include two essential processes of providing suitable and available information as well as listening to what women say and responding to their needs when delivering preconception care, this study was performed with the aim of determining the communication skills of healthcare personnel with women during delivery preconception care.

## Materials and Methods

This cross-sectional analytical study was performed in 2012 and 2013 on 39 healthcare personnel (midwives and technicians of family health) when taking care of 360 women during their reproductive ages who visited 22 healthcare centers selected in Mashhad, Iran. The sampling method was non-probabilistic and multistage. For this purpose, after classifying the healthcare centers of Mashhad into five classes, the healthcare centers were chosen. In the next stage, those who qualified to be included in the study were selected via convenient and available sampling out of all women in their reproductive ages who had visited these healthcare centers to receive preconception care. Moreover, all the personnel who delivered pre preconception care in the studied centers were chosen to participate in the research.

To determine the sample volume, due to absence of a similar study, first a preliminary study was carried out as pilot on 30 women during reproductive ages. Using the P value obtained related to the variable of active listening skill (0.63), through the formula of ratios with confidence interval of 95% and accuracy of 5%, the sample volume was estimated to be around 360. The inclusion criteria for the women in their reproductive ages included being Iranian and resident in Mashhad, lying within the reproductive age range (15-49 years old), speaking Persian as their native language, being literate, and having mental and physical health according to self-expression and the documents in the file available in the center.

The instrument used in this study included the questionnaire of the characteristics of service providers as well as mothers along with the checklist for assessing observation of communication skills. This checklist was a researcher-made, which evaluated the interpersonal dimension of care process based on Donabedian model [16]. It included 22 items based on the interaction between the care provider and the research unit, involving four main axes of verbal skills, nonverbal skills, listening skills, and privacy protection skill. Regarding the scoring, each item was assessed with three options: "it was performed: 2 scores," "it was performed incompletely: 1 score", and "it was not performed: zero score".

The options which had been performed completely by the healthcare provider was allocated "2 scores", those performed incompletely were assigned "1 score" and the cases for which nothing was performed were given "zero score". The option "no difference" was also considered for each criterion, which was eliminated and excluded from the overall calculation in case there was no reason for performing them during health care provision. The total score considered for this section was 44. Finally, after obtaining the sum of the scores, to correspond them with desirable level of cares, the sum of the obtained scores was calculated in terms of percentage and classified into three levels including poor (0-33%), medium (34-66%), and good (67-100%). In this research, the type of attitude of the health personnel toward the necessity of performing pre preconception care was also evaluated using Likert scale including low, moderate, high, and very high levels through a question which had been devised in the form of the demographic information of the healthcare providers.

To determine the validity of the instrument, the checklist of the care communication skills, the form of demographic information of the research units, and four of the characteristics of the healthcare providers were examined by 10 faculty members, confirming its content validity. The checklist's reliability was also confirmed using interrater correlation method. For this purpose, 10 observations were completed concurrently by the researcher and his research colleague separately. Correlation between the results confirmed reliability of the checklist ( $r=0.8$ ).

Regarding the method, after approving the plan at Mashhad University of Medical Sciences and receiving the verification of the ethics committee of this university, data collection was initiated. After receiving written consent form from the units, the provision of pre preconception care by the healthcare providers was observed. To prevent the effect of researcher presence in the place of service provision, the researcher tried to naturalize his Presence during provision of services. For this purpose, from the beginning of administrative

hours, she started her job in the site of healthcare provision and observed all cares (controlling pregnant mothers, family-planning services, I.U.D insertion, etc.).

The purpose was to reduce her presence on the performance of healthcare when preconception care were provided. Moreover, throughout the entire period of caregiving, he never recorded her observations in the presence of the healthcare provider. Nevertheless, immediately after providing the care, he left the room and completed the relevant checklist. After collection, the data were analyzed by SPSS 16 using descriptive statistics as well as Kruskal-Wallis and Spearman tests. P-value less than 0.05 was considered significant.

### Results

The results indicated that most of the providers (92.3%) were midwives and 69.2% of them were in charge of providing these services from the beginning of the preconception care plan. Their mean age was  $37.92 \pm 6.97$  years old, their working background was  $13.64 \pm 7.26$  years. Also, the average years during which they have been involved in providing pre preconception care was  $3.43 \pm 0.94$ . Other characteristics of the care providers indicated that 71.8% had a history of participating in communication skills workshops. Furthermore, 48.7% had experience of participating in re-learning in the previous year. Moreover, 61.5% of them had other responsibilities apart from midwifery in the center. Nevertheless, 74.4% of them had stated that they have plenty of opportunity to provide preconception care. Finally, 79.4% were interested in their job. The information obtained from the women in their reproductive age participating in the research indicated that the mean age was  $26.93 \pm 5.22$  years old. Most of them (44%) had secondary education, with 9.90% of them being housewife.

The results of observation of communication during provision of preconception care indicated that the mean score obtained from this section was  $22.76 \pm 5.02$ ,

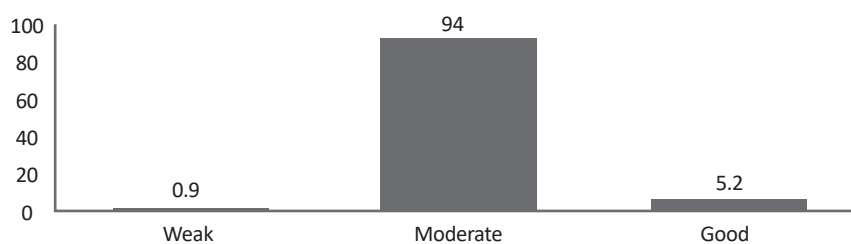


Figure 1. Interpersonal interaction between healthcare providers and mothers

suggesting medium level of communication skills by the healthcare personnel (CI95%=22.23-23.29).

Furthermore, the mean obtained scores of communication were classified as poor, medium, and desirable levels, as summarized in [Figure 1](#). The results in the section of investigating communication dimensions revealed that privacy protection received the minimum score by the healthcare providers during care provision, i.e. it followed the least by the providers ([Table 1](#)). The results in the section of investigating the attitude of the personnel toward the necessity of providing preconception care showed that 33.3%, 59%, and only 7.7% (3 persons) believe in very high, high, and medium importance of providing these cares, respectively.

Investigation of the relationship between demographic characteristics of the healthcare personnel and communication skills indicated that there is no significant difference between communication skills and age, experience of providing prenatal and postpartum care, and working background. Additionally, Kruskal-Wallis test revealed that there is a significant relationship between the personnel attitude about the necessity of providing preconception care ( $P=0.001$ ) with the extent of communication skills used by the healthcare personnel. Such a significant relationship was also observed using Spearman test between the communication skills and their working background in the plan of integrated cares for mothers ( $P=0.024$ ).

## Discussion

In the healthcare provision system, the healthcare providers face a wide range of clients, each of whom requires a different method in establishing communication. Preconception care are one of the cares that require establishing suitable medication between the healthcare provider and the service receiver. Establishing suitable communication with service receivers is also considered an important part of nursing and midwifery cares which can cause improved health implica-

tions and satisfaction of people [17]. The results of this study revealed that the healthcare personnel have a medium level of communication skills to communicate with service receivers. The results were in line with the research by Khadivzadeh [9].

In the present study, out of the four areas of communication skills, the one that was followed more seriously by the health personnel to establish communication with clients was listening to the service receiver. On the contrary, in the research by Safavi, the most important skill was verbal skill [2]. It seems that the difference in the service area and type of services has been the reason for this difference. The case which was the least taken care of was neglecting privacy protection (opened door of rooms, presence of another person). On the contrary, according to the statement of International Planned Parenthood Federation, provision of a private environment during consultation is the right of the applicants [15]. Moreover, based on Islamic and Iranian beliefs of applicants, privacy of the consultation room should be more emphasized [1].

In the present study, there was a significant relationship between the background of healthcare personnel in the plan of integrated cares for mothers and their attitude toward the necessity of providing preconception care with their skill in establishing communication with the service receiver. This finding was in line with the results of a study [9]. According to the findings of the present research, most units had a desirable communication level. However, in the study by Taghizadeh, most communications had an undesirable level. This difference can be attributed to the scoring in these two studies. In the research by Taghizadeh, acquiring a score lower than 70% of the expected score was considered poor interaction [12], whereas in the present research, acquiring a score over 33% was considered as medium level.

Boller has also reported the quality of the interpersonal communication and interaction between healthcare providers and service receivers as desirable. In this regard,

**Table 1.** The mean score required for communication skills by each individual dimension

Dimensions	Mean	Minimum	Maximum
Verbal skill	61.15±11.37	19.23	100
Nonverbal skill	54.07±21.14	0	100
Listening	71.57±12.07	50	100
Protecting privacy	30.92±26.40	0	100

these care providers provided enough and required information for the clients, in addition to following the consultation principles. Protecting the privacy of patients and following the fundamental principle of consultation (welcoming the client) were among the most frequent measures observed in the interpersonal interaction in that study [18]. The findings of the present study are contrary to the results of the above-mentioned research. In interpersonal interaction, Rani has also dealt with issues including the time allocated for each care, privacy protection, and establishing suitable verbal communication with clients. Eventually, the quality of the interpersonal interaction of these cares was reported to be lower than the desirable level [19].

In the present study, the main communication skill followed by that personnel was listening skill. Active listening, eye contact, and paying attention to what the clients say are among the most essential points in establishing communication, which result in the major accomplishment which is trust [20]. In the present study, interpersonal interaction has been evaluated across various sections including verbal communication, non-verbal communication, active listening, and protecting privacy. Overall, the results suggest medium quality of cares in this dimension.

The individual and personality differences as well as the different mental and psychological states of the research units have affected their responses, which could not be controlled by the researcher. Regarding observation of the performance of healthcare providers, despite the measures taken for naturalizing presence of researcher at the site of service provision, this could still be one of the limitations of the research.

In summary, the findings of this research indicated that the quality of interpersonal interaction between health personnel in centers covered by five health centers in Mashhad is of medium level. Therefore, these results highlight the need to pay more attention to the comprehensive health centers in Mashhad to improve both the quantity and quality of the workshops training principles of consultation and communication skills. In addition, elevating the number of human workforce in relation to the population covered by the healthcare centers and sensitizing the personnel to the importance of preconception care are recommended.

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### Conflict of Interest

No conflict of interest has been declared by the authors. All authors have agreed on the final version and meet at least one of the ICMJE authorship criteria, including substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data, drafting the article or revising it critically for important intellectual content.

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