



Evaluating the Professional Competence of Iranian Midwives in Childbearing Counseling: A Comprehensive Assessment

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Abstract

Introduction: Midwives play a crucial role in promoting maternal and neonatal health, making it essential to evaluate their effectiveness in childbirth counseling. This study aims to assess the competency of midwives in providing childbirth counseling at comprehensive health centers in Qazvin city, Iran.

Methods: A cross-sectional study was conducted in 2022 utilizing a census sampling method, encompassing all 88 midwives in Qazvin city, Iran. The study utilized a demographic questionnaire and Midwifery Professional Competency Standard Tool for Childbirth Counseling, consisting of 46 questions across five areas: professional/ethical counseling, comprehensive care, interpersonal relations, organization and coordination, and personal/professional development. Data were analyzed using SPSS v23 software.

Results: The mean age of participants was 37.420 ± 7.729 years. The competency scores ranged from 137 to 230, with a mean of 200.750 ± 13.461 . The results revealed that 88.7% of the participants were accountable for their professional performance in professional-ethical competency. The mean scores for midwifery professional competencies in ethical/professional, comprehensive care, interpersonal relationships, organization-coordination, and personal/professional development were 61.318 ± 5.029 , 39.818 ± 3.459 , 34.715 ± 3.099 , 39.386 ± 3.448 , and 25.511 ± 2.617 , respectively.

Conclusions: Midwives working in comprehensive health centers in Qazvin city exhibit strong competency in childbirth counseling, reinforcing their essential role in maternal healthcare.

INTRODUCTION

Demographic fluctuations are primarily influenced by fertility and childbearing, which are critical phenomena in the field of demography. In most countries, demographic policies are primarily focused on either decreasing or increasing fertility rates [1]. Historically,

the global population has been predominantly young, with an average age of 20 years. However, in the current generation, the world's average age has increased significantly, doubling from 22 years in 1975 to over 40 years by 2050. For the first time in history, the elderly

population surpasses the young population [2]. This trend of population aging is observed in both developed and developing countries, albeit at different rates. For instance, in France, it takes 115 years for the elderly population to increase from 7% to 14%. In contrast, this doubling of the elderly population is expected to occur within two to three decades in developing countries such as Iran, Brazil, and China [3].

As a result of advancements in medical treatments, increased life expectancies, and decreased birth rates, Iran's demographic structure is shifting from a youthful to an elderly population. According to the World Health Organization (WHO), the percentage of Iranians aged 60 and above is projected to rise to 33% within the next 35 years [4]. Population science is significantly influenced by the critical role of childbearing. It remains a crucial topic within social and cultural discussions and is considered central to the sustainable development of countries with low fertility rates. In recent years, families globally have experienced extensive social and technological changes, making child-rearing more challenging than other family values. In Iran, fertility and childbearing rates are below replacement levels, yet Iranian families express a strong desire to have more children. Addressing childbearing is an essential demographic, social, and cultural issue that warrants thorough analysis and the formulation of appropriate solutions [3-5]. In recent years, efforts have been made to encourage families to have children through population growth policies. The primary objective of these policies is to promote healthy families and the well-being of mothers and newborns [1]. The motivation to have children is the starting point, followed by desires, the desired number of children, and the timing for having children [6].

Changing society's reproductive behavior is influenced by a variety of factors, including the increasing age of mothers at first pregnancy, rising age of marriage, gender equality, women's empowerment in modern society, evolving reproductive behavior, higher levels of women's education, family income, and the level of responsibility of couples [7, 8].

A midwife plays a vital role in providing advice and training in the field of healthy fertility and childbearing. Childbearing counseling aims to raise clients' awareness regarding the issues of having a single child or being childless, and to improve their decision-making skills concerning the timing and number of children [9].

Midwives need to be clinically competent to provide optimal services and appropriate guidance at the right time. A midwife is considered competent when she can perform her professional duties at an appropriate level of quality and grade. Clinical competency is influenced by two main categories of factors: internal and external. Internal factors include knowledge, skills, ethics, work conscience, spirituality, respect for oneself and others, effective communication, and responsibility. External

factors encompass environmental influences and an efficient educational system [10, 11].

Given the development of childbearing programs in the country and the critical role that midwives, particularly those working in comprehensive health centers, play in encouraging women and families to conceive, there is a need to assess their clinical competence in providing childbearing counseling. This study addresses the gap by examining the professional competence of midwives in selected comprehensive health centers in Qazvin city, Iran.

METHODS

This cross-sectional study was conducted across all 37 comprehensive health service centers under the Shahid Bolandian Health Center in Qazvin, Iran, with data collection carried out between December 2022 and June 2023. The inclusion criteria for the study were midwifery graduates employed as midwives or healthcare providers in comprehensive health centers. Only individuals officially affiliated with these centers during the study period were included. Participants with incomplete questionnaires or those who did not complete more than 20% of the questions were excluded from the study. Based on Haqdoost et al. (2021), the sample size was estimated at 88 participants, derived from performances-related findings in their study, using the formula for estimating the proportion of a qualitative trait within a population [12]. Out of 100 eligible individuals, 88 midwives and healthcare workers met the inclusion criteria and were available for participation, while 12 were excluded due to leave or official duty assignments.

$$n = \frac{Z_{1-\alpha/2}^2 pq}{d^2}$$

$Z_{1-\alpha/2}$	1.96115082
P	0.823
q	0.177
d	0.08
α	0.05
N	88

The tools utilized in this study included a demographic questionnaire and a Midwifery Professional Competency Standard tool. The demographic questionnaire comprised 8 questions covering age, education, position, work experience, marital status, type and number of childbirths, duration of free time from education, and history of participation in workshops or training courses.

The Midwifery Professional Competency Standard Tool for Childbirth Counseling contained 54 questions across five areas: professional/ethical counseling (15 questions), comprehensive care (14 questions),

interpersonal relations (8 questions), organization and coordination (9 questions), and personal/professional development (8 questions). The questions were scored on a 5-point Likert scale from 1 to 5 [13]. Additionally, the tool incorporated items addressing competencies relevant to childbirth counseling.

In the current study, the Persian version of the psychometric assessment was utilized [14]. The content of the questionnaire was validated through expert opinion and input. To determine content validity, the questionnaire was sent to 11 relevant experts who were asked to classify each question based on a three-part Likert scale: "the item is necessary," "the item is useful but not necessary," and "the item is not necessary." Based on the results, 14 out of 54 questions scored below the Lawshe table threshold (0.59). These questions were revised and re-evaluated by the experts. In this stage, 46 questions scored above 0.59, and questions scoring higher than 0.79 were approved by the research team. Finally, the questions in each area were divided as follows (Table 1).

The field of professional/ethical counseling (14 questions), the comprehensive care (9 questions), the interpersonal relations (8 questions), the organization and coordination (9 questions) and the personal/professional development (6 questions). To measure reliability, the internal coherence of the questionnaire was confirmed with the Cronbach's alpha of 0.905. To measure reliability, the internal consistency of the questionnaire was confirmed with a Cronbach's alpha of 0.905.

After data collection, the obtained information was analyzed using SPSS V23 software. Descriptive statistics, including mean, standard deviation, and absolute frequency were used.

RESULTS

In this study, the mean age of participants was 37.420 ± 7.729 years, with the minimum and maximum ages being 24 and 58 years, respectively. Among the midwives participating in the research, 83% held a bachelor's degree, 8% had postgraduate education, and 9% had education higher than a bachelor's degree. The average work experience of the participants was $7,689 \pm 12,795$ years. Additionally, 34.5% were healthcare workers and 14.9% were midwives. Table 2 presents other demographic characteristics of the participants.

The results of this study indicated that 88.7% of the participants were responsible for their professional performance in the area of professional-ethical competence. Furthermore, 86.4% promoted fertility/pre-pregnancy counseling independence. The study revealed that participants actively assisted women in making informed decisions during fertility/preconception counseling. During the fertility/pre-pregnancy consultation, 93.4% of individuals recognized any condition that necessitated further investigation or referral to a specialist.

The results of this study regarding interpersonal relationship competence showed that 79.5% of participants in childbearing/pre-pregnancy counseling were satisfied with the suitability and effectiveness of personal communication techniques, considering the needs, context, and culture of each woman, family, or group. Additionally, 94.4% showed respect for women's values and culture during childbearing/pre-pregnancy counseling.

The study's findings on organization-coordination competence indicated that 92.1% demonstrated the ability to work as a team member during childbearing/pre-pregnancy counseling. Furthermore, 94.3% actively supported and participated in quality plans for fertility/pre-pregnancy counseling.

Table 1. Midwifery Professional Competency in Childbearing Counseling Items

1- Ethical/professional competence
- In accordance with the population document and the guidelines of population youth and childbearing, I provide childbearing counseling.
- I integrate my midwifery knowledge with professional ethical principles in providing childbearing / preconception counseling.
- I maintain privacy and confidentiality in providing childbearing /pre-pregnancy counseling.
- I understand and evaluate the population policies of the country and related guidelines.
- I respect the rights, beliefs and cultural practices of women and their families in providing childbearing /pre-pregnancy counseling.
- I look at having children as part of the life cycle and as a natural event.
- I am committed to carrying out childbearing/preconception counseling centered on women.
- I promote childbearing /preconception counseling independently.
- I support the empowerment of women and their families in childbearing /pre-pregnancy counseling sessions.
- I critically evaluate my performance in providing childbearing/preconception counseling.
- I am responsible for my professional performance in carrying out childbearing /preconception counseling.
- Referring to the above laws, I determine the scope of my practice in carrying out childbearing/pre-pregnancy counseling.
- I evaluate my abilities and level of professional competence in carrying out childbearing/pre-pregnancy counseling.
- In carrying out childbearing/pre-pregnancy counseling, I take the appropriate action if faced with a situation beyond my competence.
2- Comprehensive Care
- During childbearing /preconception counseling, I use the best available evidence to provide comprehensive midwifery care.
- During childbearing /preconception counseling, I assess and confirm the woman's health and well-being and provide appropriate care.
- During childbearing /pre-pregnancy counseling, I recognize any situation that requires further investigation or referral to a specialist.
- During childbearing /pre-pregnancy counseling, I recognize and respond to emergencies that affect the woman's health and/or safety in a timely and appropriate manner.
- During childbearing /pre-pregnancy counseling, I evaluate the results of the consultation and plan future care with the participation of the woman.
- During pregnancy/pre-pregnancy counseling, I use my midwifery skills and knowledge to support women in achieving their potential for pregnancy and childbearing.
- I actively facilitate informed decision-making by women during childbearing/preconception counseling.
- I participate in shared decision-making with the woman, her family, and the health care team during childbearing/preconception counseling.

- During childbearing/preconception counseling, I recognize and respect the role of the woman's family in pregnancy experience.-

3- Interpersonal Relationship

- During childbearing/pre-pregnancy counseling, I think about the appropriateness and usefulness of personal communication techniques considering the needs, context and culture of each woman, family or group.
- I establish and maintain compassionate interpersonal relationships with women and their families during childbearing/preconception counseling.
- During childbearing/pre-pregnancy counseling, I help women, families and groups in identifying and communicating their needs.
- During childbearing/preconception counseling, I recognize and remove barriers to effective communication.
- I show respect for women's values and culture during childbearing/pre-pregnancy counseling.
- During childbearing/preconception counseling, I demonstrate the ability to accurately present and share information with other members of the health care team and actively participate in shared decision making.
- I participate in discussions with other members of the health care team in a constructive critical manner during childbearing/preconception counseling.
- During childbearing/pre-pregnancy counseling, I demonstrate the ability to record clinical practice in a clear, objective and accurate manner within the legal and ethical framework.

4- Organization – coordination

- I choose and use resources effectively and efficiently during childbearing/preconception counseling.
- During childbearing/pre-pregnancy counseling, I use time management strategies to effectively plan and prioritize my workload and take initiative.
- During childbearing/pre-pregnancy counseling, I adhere to the scope of my midwifery performance due to the delegation of authority.
- I demonstrate the ability to work as a member of a team during childbearing/preconception counseling.
- I actively promote continuity of care for women during childbearing/pre-pregnancy counseling.
- I evaluate the provision of care to women, their families and communities during childbearing/preconception counseling.
- During childbearing/preconception counseling, I actively participate in initiatives to improve quality, safety, access, and women-centered care.
- I actively support and participate in quality plans related to childbearing/preconception counseling.
- I integrate the principles of management, health and safety in my practice during childbearing/pre-pregnancy counseling

5- Personal/ professional development

- I am committed to identifying and using potential resources to facilitate lifelong learning during childbearing/preconception counseling.
- During childbearing/preconception counseling, I demonstrate a commitment to continuing professional education and lifelong learning to be a midwife.
- During childbearing/pre-pregnancy counseling, I show awareness of my identity and unique professional role as a midwife.
- During childbearing/pre-pregnancy counseling, I demonstrate the ability to think and improve midwifery performance.
- During childbearing/pre-pregnancy counseling, I contribute to the learning experience of colleagues through support, supervision and training.
- I educate and support women, their families and the wider community during childbearing/pre-pregnancy counseling to maintain and promote the health of women.

Table 2. Frequency Distribution of Participants According to Number of child, Type of delivery, Position and Related Course (N=88)

	Number(N)	Percent (%)
Number of child		
1	32	47.1
2	30	44.1
3	6	8.8
Type of delivery		
NVD	15	17
C/S	73	83
Position		
Midwife	13	14.9
Health Care	30	34.5
Midwife/ Health Care	44	50.6
Related Courses		
Yes	67	76.1
No	21	23.9

Table 3. Mean Score of Midwifery Professional Competency Fields

	Min	Max	Mean	SD
Ethical/professional	43	70	61.318	5.029
Comprehensive care	30	45	39.818	3.459
Interpersonal relationships	28	40	34.715	3.099
Organization-coordination	30	45	39.386	3.448
Personal/professional development	20	30	25.511	2.617
Total competency	173	230	200.750	13.461

Regarding personal/professional development competency, 86.3% showed a commitment to continuous professional training and lifelong learning as midwives during childbearing/pre-pregnancy counseling. Additionally, 92% educated and supported women, their families, and the wider community during childbearing/pre-pregnancy counseling to maintain and improve women's health. Table 3 shows Mean Score of Midwifery Professional Competency Fields in childbearing counseling.

DISCUSSION

The results of this study showed that midwives working in the health centers of Qazvin city, Iran, are well-prepared to carry out childbearing counseling. Although similar studies evaluating the clinical competence of midwives in childbearing counseling have not been conducted, the findings of this study are consistent with other studies that examined the overall competence of midwives.

The results of Majzoubi's study (2017), which examined the level of knowledge of midwives about the principles of professional ethics, showed that the majority of

midwives (92%) had a good level of knowledge about the principles of professional ethics, while 8% were at an average level. In the field of communication with colleagues and clients, 98% of midwives had a good level of knowledge, and 2% were at an average level. In terms of management, 94% of midwives were at a good level, and 6% were at an average level. Overall, the study indicated that midwives were in a favorable situation regarding their knowledge of professional ethics principles [15].

Babaei et al.'s research (2023) on hospital nurses in Hamadan showed that nurses had a moderate range of clinical competence [16]. In Nasiriani et al.'s study (2018), the level of awareness of midwives regarding the codes of professional ethics was high and acceptable [17]. Boudiarti et al.'s study (2019) found that the factor contributing most to the professional personality of midwives was professional qualification, emphasizing that professional competence is the most important factor in the personality of a professional midwife [18]. In community-oriented midwifery, which is a branch of social medicine, the role of midwives is primarily manifested in the places where clients reside and work. Midwifery services have had a community-oriented nature from their inception. Some developed countries attribute the reduction in maternal mortality in recent decades to the expansion of community-oriented midwifery. Generally, recognizing and addressing the problems of mothers and children is one of the main goals of community-oriented midwifery [19].

The study by Haqdost et al. (2021) examined the awareness and performance of Iranian midwives regarding respectful care during childbirth. The findings showed that Iranian midwives had good knowledge and fair performance. Participating midwives scored well both in terms of performance and awareness in the area of maltreatment prevention. They also demonstrated good knowledge and fair performance in providing emotional support and ensuring safe care [12].

Interpersonal communication is the process by which information, meanings, and feelings are shared through the exchange of verbal and non-verbal messages. Effective communication is essential to achieving organizational goals [20]. In the field of medicine, the significance of effective interpersonal communication cannot be overstated. It serves three fundamental purposes: facilitating the seamless exchange of information, fostering strong interpersonal bonds rooted in trust, and empowering patients to actively participate in the decision-making process.

Furthermore, communication is key to promoting respectful maternity care and safeguarding the human rights of women. Effective communication between healthcare providers and patients plays a crucial role in influencing various aspects of healthcare outcomes, such as patient satisfaction, knowledge level, treatment

adherence, quality of life, and both psychological and physical well-being. Improved communication among healthcare providers, mothers, and newborns is key to enhancing the overall quality of care, promoting respect, and reducing the likelihood of mistreatment within maternal and newborn care [21].

The motivation to have children is the starting point and precedes the desires, the desired number of children, and the timing of having children. As a responsible person, a midwife plays an important role in providing advice and training in the field of healthy fertility and childbearing.

CONCLUSION

Given the increasing elderly population and the need for sustainable demographic growth, midwives' competence in childbearing counseling is essential. The study underscores the importance of continuous professional training and development for midwives to maintain high standards of care. By addressing both internal and external factors that influence clinical competency, midwives can enhance their skills and provide optimal services to women and their families.

Overall, the study emphasizes the pivotal role of midwives in community-oriented midwifery and their contribution to improving maternal and newborn health outcomes. Ensuring midwives' preparedness and competence in childbearing counseling will ultimately promote the well-being of mothers, children, and families in Iran.

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AUTHOR'S CONTRIBUTIONS

Development of research and hypotheses: M.R, M.A.K, F.N.SH& S.E.S; Data gathering: M.R & F.O.; Data Analysis: M.F.; Interpretation of results: M.A.K, M.F, M.R, F.N.SH& N.SH; Original Draft Preparation: M.A.K, N.SH& M.R. All authors read and approved the final manuscript.

ETHICAL CONSIDERATION

The ethics code (IR.ABZUMS.REC.1401.131) was obtained from the Research Vice-Chancellor of Alborz University of Medical Sciences.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest in this study.

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