



Evaluation of clinical competence and professional socialization of midwives practitioner in Khuzestan hospitals

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Received for publication: September 5, 2015; **Revised:** October 12, 2015; **Accepted:** October 17, 2015

Abstract: Clinical competency and professional socialization are the professional features important for the staff in a health system. Clinical competency plays an important role in improving the clinical skills and the quality of midwifery services; it also can reduce maternal and neonatal mortality. Professional socialization is the process of assuming professional roles which is concerned with individuals' culturalization in the existing patterns in an organization. This study aimed to determine clinical competency and professional socialization among midwives working in hospitals in Khuzestan Province. This descriptive study was conducted on 96 midwives working in the maternity wards in the hospitals in Khuzestan Province. Data on their clinical competency and professional socialization were collected through self-assessment and evaluation methods by the observer as well as Toit's Professional Socialization Questionnaire, respectively; and they were analyzed using the SPSS software version 18. Midwives' clinical competency was evaluated at a high level as 93.8% in the self-assessment method and 90.6% by the observers. Clinical competency through the self-assessment method was significantly lower in the admission stage ($p < 0.05$) compared with evaluation by the observer; and it was greater at the first, second, third, and postpartum stages ($p < 0.01$). The level of professional socialization among midwives was poor by 1% and it was on average and high by 16.7% and 82.3%; respectively. The clinical competency and the professional socialization of employed midwives have reached a desirable level after three years since their work start-up, and they have obtained necessary clinical and professional skills in performing their midwifery duties. But, there are still 18% of midwives without any professional socialization.

Keywords: Evaluation; Clinical Competency; Professional Socialization; Midwife

INTRODUCTION

Human resources constitute the foundation of health care systems and if their plans and training programs are not consistent with the countries' professional needs and social conditions, they will not be able to move the level of health in their communities to an extent wherein individuals have productive lives from social and economic perspectives(1). Any expenses for the delivery of better health services by the human force are considered as the best investments in health systems (2).

Midwifery is one of the medical careers which is a combination of art and science and requires capabilities such as intelligence, knowledge, creativity, experience, logical understanding, and critical thinking (3). Midwifery is also engaged in clinical judgments which have a direct impact on the health of the mothers and fetuses. In this way, midwives play important roles in terms of education and counseling to improve health not only for women but also for the households and society. They also have a vital position in public health and health promotion for women and families and can help reduce maternal morbidity and children's mortality rate (4). A midwife is as the first individual in the health team who is in contact with pregnant women and finds out their obstetric problems. The graduates in this field must have achieved the minimum professional and clinical skills to conduct their midwifery tasks (5) in order to attain the promotion of mothers' and children's health and ultimately health in society (6).

According to the recent reports by the World Health Organization in 2013, pregnant women's death rate in 2010

has been 28,700 cases across the world. The index has been reported less than 10 cases in developed countries to more than 500 cases in developing countries at a hundred thousand live births. In Iran, it has changed from 94 cases in 1995 to 20.3 cases of deaths per 100,000 live births in 2013.

One of the main concerns of managers which plays a significant role in improving the quality of midwifery services and mothers' satisfaction is to ensure the clinical competency of midwives (8). The World Health Organization has interpreted the clinical competency as the level of performance that represents the application of knowledge, skill, and judgment in an effective manner (9). The clinical competency is the thoughtful implementation of technical and communicative skills, knowledge, clinical reasoning, as well as emotions and values in a clinical context. From this perspective, the definition shows that individuals are regarded as competent when they are able to play their roles and assume their responsibilities at an appropriate level, grade, and quality (10). Studies have demonstrated that clinical competency has an important part in improving the clinical skills and the quality of midwifery services (11). Thus, experts with knowledge and good performance in terms of pregnancy and natural delivery, emergency diagnosis and taking appropriate measures, identification of high-risk cases, and if necessary,

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timely referral to a specialist; significantly decrease maternal mortality rate (12).

Some studies in Iran have shown that the quality of midwives' activities is not desirable. For example, Farrokhi *et al.*, reported that the quality of care provided by midwives is within normal limits in only 55.8% of midwives (13). Numerous studies have also revealed that 75% of maternity and neonatal mortality can be prevented via proper and high-quality clinical skills in midwifery (14). The results of a study by Mirzakhani *et al.*, indicated that, on average, 72.8% of Midwifery graduates do not have sufficient skills in the field of high-risk conditions of mothers and infants (15).

Another important requirement of any specialist, particularly in the health system, is professional socialization (16). Socialization is a process that teaches people how to effectively participate in society as a member. In the process of socialization, an individual learns how to cooperate with other members of the society (17). Professional socialization is the process of accepting professional roles and it is concerned with the individuals' culturalization in the existing patterns in an organization. It is assumed that the process of professional socialization occurs when an individual is studying in an educational context; while it is in progress after graduation and until the time when individuals work in that profession. Professional socialization is also affected by the environmental conditions and individual experiences when they become compatible with professional roles (18). Benoit states that the acquisition of socialization skills is necessary for professional midwives (19). Shahim *et al.*, reported that the level of professional socialization of Nursing graduates in Iran were within acceptable limits (25).

There is no study of clinical competency and professional socialization among Midwifery graduates in Iran. In addition; according to the different cultural, environmental, educational facilities and service consumers, the evaluation of clinical competency and professional socialization among Midwifery graduates to ensure the quality and the safety of cares provided is of utmost importance. Therefore, the researchers were to conduct a study in this regard in order to use its results to promote Midwifery training.

MATERIALS AND METHODS

This study was of a descriptive type conducted in public hospitals affiliated to Ahvaz Jundishapur University of Medical Sciences in Khuzestan Province (2015) wherein the midwives were employed in maternity wards. The context of the study was comprised of 12 public hospitals in Khuzestan Province including 3 educational hospitals and 9 non-educational hospitals in which the hospital wards had a reception room (admission) as well as labor, delivery, and postpartum sections. All the midwives working in the maternity ward and with a working experience less than three years were included (n=96). The inclusion criteria to the study were holding a bachelor's degree in Midwifery, having less than three years of working experience, and

signing informed consent. The data were collected through questionnaires. A researcher-designed questionnaire of clinical competencies in midwifery examined the clinical skills in the five sections of reception (admission); the first, second, and third stages of delivery, and the postpartum stage. For the high, relative, and poor levels of skill; scores of 4, 3, and 2 were considered; respectively. For the lack of skill, score 1 was taken into account. The demographic information included age, marital status, grade point average, university, place of work (educational or non-educational hospitals), working experience, and time spent to be employed. A checklist similar to the self-assessment clinical competency questionnaire was administered in the same way for observing and evaluating them. The clinical competency questionnaire was designed and developed through reviewing literature and as a combination of the standards of the International Confederation of Midwives and the new curriculum of bachelors' degree in Midwifery. To measure the face as well as the content validity of the questionnaire, it was submitted to 10 faculty members in the school of Nursing and Midwifery at Ahvaz Jundishapur University of Medical Sciences and then confirmed. The test-retest method and a pilot study were used to determine the reliability of the questionnaire. The reliability coefficient was also calculated using Cronbach's alpha coefficient which was 0.97. The next questionnaire was Persian version of Toit's Professional Socialization Questionnaire composed of 48 items to determine the level of professional socialization; in each case, the individual participants could show the extent of their agreements by choosing a number between one (indicating very low) to seven (indicating very high). The scores for each item were collected and each total score for the questionnaire was in a range of 48 to 336 (25).

After obtaining permission from Ahvaz Jundishapur University of Medical Sciences as well as obtaining participants' informed consents, the procedure and the purpose of the study were explained to the managers. The authorities of the given hospitals were assured that the data obtained will remain confidential. Required explanations in terms of research objectives and how to complete the questionnaires were provided to participants. Each participant had the right to participate or withdraw from the study at any stage of the research. The participants were first asked to complete the self-assessment questionnaires of clinical competency and professional socialization as well as a demographic questionnaire and return them. Then the clinical skills of participant midwives were directly observed and evaluated by the second author (a midwife) or a researcher assistant (an expert midwife trained by the researcher). To this end, the assessment started by the researcher or the researcher assistant since the pregnant woman's admission and then the midwives' skills in providing obstetric care in the delivery section were observed and evaluated according to the checklist.

The ethical code of ajums.REC.1393.386 was obtained from the ethics committee of Ahvaz Jundishapur University of Medical Sciences.

RESULTS

The results indicated that the average age of Midwifery graduates was 25 years old, the mean of their grade point average at the time of graduation was 16.95, the average working experience was 14 months, and the average time spent to be employed was 7 months.

The clinical competency levels of participant midwives are illustrated in Table 1. The majority of midwives have been evaluated as high competence in all stages, by both self-assessment and observation, except for the third stage that evaluated by observation as average.

Table 1: The clinical competency level for each stage among midwives (n=96)

Method	Delivery Stage	Poor (<50)	Average (50 -75)	High (> 75)
Self-Assessment Method	Admission	0	16.7%	83.3%
	First Stage	0	6.3%	93.8%
	Second Stage	0	2.1%	97.9%
	Third Stage	0	19.8%	80.2%
	Postpartum Stage	0	1%	99%
Observation Method	Overall	0	6.3%	93.8%
	Admission	0	8.3%	91.7%
	First Stage	0	21.9%	78.1%
	Second Stage	0	11.5%	88.5%
	Third Stage	0	41%	58.3%
	Postpartum Stage overall	0	5.2%	94.8%

In table 2, the comparison of midwives' clinical competency in the self-assessment and observation methods has been showed. The paired t-test showed that midwives at the stage of admission assessed their competency less than that observed by the researcher; but at the first, second, third and postnatal stages, midwives assessed themselves more than that of researchers' observation (p < 0.05). Overall clinical competence score of midwives was significantly higher in self-assessment than the observation method (p < 0.01).

Table 2: Comparison of midwives' clinical competency in the self-assessment and observation methods (n=96)

Clinical Competency	Self-Assessment Method Mean±Standard Deviation	Observation Method Mean±Standard Deviation	Paired t-test Value	P-value
Admission	77.01±12.67	83.31±11.68	5.98	p < 0.05
First Stage	84.02±13.25	76.81±13.85	4.162	p < 0.05
Second Stage	85.85±10.42	80.58±12.76	3.944	p < 0.05
Third Stage	77.01±13.93	69.86±12.76	4.590	p < 0.05
Postpartum Stage	92.26±9.82	69.86±12.09	5.021	p < 0.05
Overall clinical competence	83.71±10.37	79.05±10.28	3.95	p < 0.001

Table 3: the professional socialization domains in midwives (n=96)

Levels of professional socialization Professional socialization domains	Poor(<50)	Average (50 -75)	High (> 75)
Interesting in midwifery	2.1%	19.8%	82.3%
Accepting midwifery	2.1%	13.5%	84.4%
Responsibility	3.1%	12.5%	84.4%
Satisfaction	1%	22.9%	76%
Overall	1%	16.7%	82.3%

The professional socialization of midwives was 1% at the poor level and 16.7% and 82.3% at the average and high levels; respectively (table 3).

The Pearson test showed that clinical competency and professional socialization have no significant relationship with age and grade point average (p> 0.05). T-test showed a significant relationship between clinical competency and years of midwifery practice experience (p< 0.004) and place of work (educational vs. non- educational hospitals) (p=0.027). However T-test showed no any significant relationship between clinical competency/professional socialization and the university, place of work, or years of midwifery practice experience (p> 0.05).

DISCUSSION AND CONCLUSION

Based on our findings, until three years after starting professional work by participants, more than 80% of them have achieved the necessary clinical competences for providing midwifery care, as well as professional socialization. So, the midwives after achieving experience, will be qualified to manage a safe normal vaginal delivery. Considering the new policies for increasing population in Iran, the importance of midwives' role in promoting and encouraging normal vaginal delivery is revealed. Nevertheless, being a number of 10-20% inexperienced or low-expert midwives even after three years of midwifery practice is considerable and need interventions for improving midwifery education.

In a study conducted in Scotland by Tucker *et al.*, they concluded that midwives have sufficient competency in providing care before and during delivery in low-risk pregnant women and there is no need to visit a gynecologist at this stage of pregnancy (20). The results of study by Mirzakhani *et al.*, in Iran showed that an average of 80.30% and 72.8% of Midwifery graduates have enough skills at the time of graduation in terms of the management of low-risk and high-risk conditions of mothers and infants; respectively (15).

In this study, the self-assessments by midwives at different stages of delivery revealed that midwives assess themselves at the admission stage compared with the first, second, third, and the postpartum stage, less than that evaluated by the observer, perhaps due to lack of confidence regarding their own clinical diagnosis or decisions. Another reason may be valuing the admission more than other stages by midwives because of critical importance of decisions made in this stage.

As well, since Midwifery graduates experience the first contact with the childbirth in the examination room (admission), they may be under stress or negative emotions. Therefore, it seems that due to these reasons, midwives assess their competency lower in the admission stage; but over time they become more self-confident so that they evaluate themselves better at the stage of delivery. These findings are consistent with the results of the study by Rahimkhani *et al.*, in which the performance of new

graduates of Midwifery in natural childbirth was evaluated and the midwives' performance at different stages indicated that the number of midwives with desirable performance at the second and third stages is more than those at the first stage of delivery (21). Similarly, Mirzakhani *et al.*, showed that Midwifery graduates have reported their clinical skills significantly higher ($p < 0.01$) than those assessed by the authorities (observation method). In a similar study by Salehi *et al.*, aimed to evaluate the performance of the nursing graduates from their own attitudes and their supervisors', similar results were obtained and it was suggested that the gap between the educational and clinical issues can have an effect on the ability of graduates to provide good performance. It should also be noted that the presence of a suitable environment for the use of skills learned is an important issue in the performance of graduates (22).

In terms of professional socialization, the results of this study showed that the great majority of the participant midwives assessed their levels of professional socialization as high. Moreover, the study by Shahim *et al.*, demonstrated that the level of socialization of graduates of Nursing at the Nursing-Midwifery School at Tabriz University in Iran was at an appropriate level so the socialization level was average for 21.4% and high for 78.6% students (25). In a study conducted by Toit (1995) in Australia aimed to determine the level of professional socialization of Nursing students, it was found that 11.6% of the samples have less than average, and 81.5% and 6.9% of the samples a more than average level of professional socialization (23). The results of this study were largely consistent with the results of the above studies. Although it is for the first time that the professional socialization is evaluated among midwives, the participants of this study understood and responded to the questionnaires well.

This study is the first investigation about professional socialization among Midwifery graduates in Iran, nevertheless involves some limitations. First, According to the criteria of three years of working experience, doing research on Midwifery graduates who have recently graduated might reveal lower levels of clinical performance although in a recent study in Iran, the self-assessment of Midwifery students on the verge of graduating showed that 61% of participants assessed their capacity as high in terms of practical skills in pregnancy and childbirth (24). The Second is the generalizability of our findings because of cultural differences. Therefore, further studies need to be conducted with more samples, in other academic contexts and also through qualitative research methods. In order to improving the professional empowerment of midwives, it is recommended that in-service courses be provided according to their educational needs especially in terms of the management of high-risk conditions for mothers.

ACKNOWLEDGEMENTS

This study was financially supported by the Vice-Chancellor for Research Affairs at Ahvaz Jundishapur University of Medical Sciences. Thereby, we express our gratitude to this respected Department. We also give our

thanks to all the participant midwives for their collaboration in this study as well as Mr. Ahmad Shahim for providing us with the Professional Socialization Questionnaire.

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CITE THIS ARTICLE AS:

Mojgan Javadnoori, Leila Dehnavi, Shahnaz Najar and Mohammad Reza Akhond. Evaluation of clinical competence and professional socialization of midwives practitioner in Khuzestan hospitals. *International Journal of Bioassays* 4.11 (2015): 4458-4462.

Source of support: Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Conflict of interest: None Declared