

Study of the self-confidence of midwifery graduates from Mashhad College of nursing and midwifery in fulfilling clinical skillsKobra Mirzakhani¹, Nahid Jahani Shorab¹

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Type of article: Original**Abstract**

Introduction: Self-confidence is one of the main components of clinical competence, and it is considered to be an important indicator of ability and competence. The aim of this study was to determine the confidence of midwifery graduates from Mashhad College of nursing and midwifery in fulfilling the required clinical skills.

Methods: The study was in the form of a cross-sectional study, and it was performed in 2011 on 50 midwifery graduates who had been working in health centers in Mashhad for six months to three years providing midwifery services, as well as on their supervisors having a minimum of 6 months experiences of responsibility in these centers. The research tools included self-assessment tools of self-confidence in midwives and assessment tools of self-confidence in midwifery graduates in fulfilling clinical skills performed by the supervisors. The validity of the tools was confirmed by face validity and content validity, and the reliability of the test was confirmed by test-retest ($r = 0.82$). After the data were extracted and encoded, they were analyzed using SPSS software version 11.5, descriptive statistics, the t-test, and Pearson's test.

Results: Among the midwifery graduates, 84.57% of them had confidence in the area of management of low-risk situations, and 55.51% had confidence in their ability to manage high-risk situations. The self-confidence levels of graduates in fulfilling clinical skills in the management of low-risk and high-risk situations were significantly different ($P < 0.05$). Clinical skills had a positive correlation with self-confidence ($P < 0.05$, $r = 0.85$).

Conclusion: Improvements were needed in the self-confidence of graduates in fulfilling clinical skills in the management of high-risk situations. In order to achieve such improvement, it is necessary to identify and use methods of increasing graduates' self-confidence in the learning environment by developing an enhanced midwifery curriculum and improved teaching methods.

Keywords: self-confidence, midwifery graduates, clinical skills

1. Introduction

Despite a substantial increase in their contributions to the enhancement of health over the past decade and determining their Millennium Development Goals (MDGs), most low-income countries are very unlikely to reach the fourth and fifth targets, i.e., 4) a 67% reduction of the under-five mortality rate (U5MR) and 5) reducing by 75% the maternal mortality ratio. Only 10 of the 67 countries involved have been able to reach these two objectives (1). Many of these deaths could be prevented, and investment in midwifery and improving the quality of the practice of midwifery are real and effective strategies to reduce maternal and neonatal mortality (2, 3). Midwives have a vital role in public health, promoting health among women and families, and reducing maternal and neonatal mortality and morbidity (4). Many studies in Iran have shown that the quality of midwives' activities is not satisfactory, for example, Farokhi et al. concluded that the quality of care provided by midwives was satisfactory only in 55.8% of the cases (5). Research concerned with college graduates in this field showed that those in the actual work environment do not have the necessary capabilities (6).

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Self-confidence is one of the main components of clinical competence, and it is considered to be an important indicator of ability and competence (7). Confidence means that practitioners see themselves as capable and competent person, which is an important aspect of the adequacy of nursing and midwifery skills (8). Students who have demonstrated appropriate academic and theoretical abilities but do not have adequate self-confidence are not likely to demonstrate acceptable clinical performance (9). Therefore, the ultimate goal of teaching nursing and midwifery is to help students to graduate as qualified and competent nurses and midwives by helping them develop self-confidence in addition to demonstrating good academic performance. Research results on students of Kashan University of Medical Sciences showed that only 49.2% of the students had high self-esteem (10). Jiang et al. reported that many senior students did not have adequate confidence to successfully fulfill the clinical requirements. Developing appropriate clinical skills after graduation is a challenge for many nursing and midwifery students, as evidenced by the fact that 33% of new nursing graduates leave their jobs in the first three months of work. Generally, those who leave their jobs never become nurses due, in part, to the fact that traditional ways of teaching nursing and midwifery do not provide opportunities to work independently and acquire enough self-confidence (11). Since self-confidence is one of the main components of clinical competence and is an important indicator of ability and competence (7), the aim of this study was to determine the levels of self-confidence among the midwifery graduates of Nursing and Midwifery College.

2. Material and Methods

This cross-sectional study was performed in 2011 with midwifery students who graduated from 2008 through 2011 from the Mashhad College of Nursing and Midwifery and worked in health centers throughout Mashhad. The sample size was 50 midwifery graduates and their supervisors in relevant sections having a minimum of six months of experiences and responsibility in these centers. Because of the limited sample size, the census sampling method was used. The research instrument consisted of three parts:

- 1) The demographic characteristics of the graduates and questions related to their age, work experience, place of employment, degree, and grade-point average.
- 2) A self-assessment questionnaire of midwives' confidence, including 40 essential midwifery skills that midwives are expected to have. In the questionnaire, two options were considered for each question, i.e., having confidence or lacking confidence in doing the job. The questionnaire was prepared by the International Confederation of Midwives (ICM) in 2006 during meetings with representatives of 86 member countries and non-member countries. In accordance with the World Health Organization's issues in relation to the midwifery, the Delphi method that was used in a previous review to develop and test the key skills required in the practice of midwifery in Cambodia and Mongolia was used in this study to test the validity of the tool, which showed a good correlation between the observed and tested competencies ($r > 0.7$) (12).
- 3) A self-confidence assessment questionnaire of midwifery graduates in fulfilling the clinical skills required by their authorities based on a Likert scale. The validity of the tools was confirmed by face validity and content validity, and the reliability of the test was confirmed by test-retest ($r = 0.82$).

After the legal procedures were fulfilled by referring to examples of such research, explaining the purpose of the study and how the questionnaire should be completed, and obtaining the written consent of the participants, the participants were asked to complete the questionnaire with the understanding that the information they provided would remain confidential. After extracting and encoding of the data were complete, the data were analyzed statistically using SPSS software version 11.5, descriptive statistics, the t test, and Pearson's test.

3. Results

The mean age of midwifery graduates was 24, and the mean of their total average score at graduation was 16.5 (out of 20). The supervisors evaluated the confidence of midwifery graduates as expected and 60% of the supervisors evaluated the responsibility of midwifery graduates as expected (Table 1). While the results of the self-assessments performed by the midwifery graduates showed that 84.57% of them had confidence in their ability to manage low-risk conditions, and about 52% of them had confidence in their ability to manage high-risk conditions (Table 2). The results also showed that self-assessments of confidence by the graduates in fulfilling the clinical requirements were significantly higher than the authorities' evaluations of the graduates' confidence ($P < 0.001$). The results showed a significant difference between the graduates' confidence in their ability to manage low-risk and high-risk conditions ($P = 0.001$). The Pearson test showed a significant correlation between obtaining the clinical skills required in midwifery in the education program and the graduates' confidence ($P < 0.05$, $r = 0.85$).

Table 1. Health center supervisors' opinions of the confidence and responsibility of midwifery graduates of the Mashhad College of Nursing and Midwifery

Evaluation	Graduates' features				
	Unacceptable	< Expected level	Borderline	Expected level	> Expected level
Graduates' confidence	26.7%	0%	6.7%	53.3%	13.3%
Graduates' responsibility	6.7%	6.7%	6.7%	60%	20%

Table 2. Self-assessment of confidence by the midwifery graduates in fulfilling clinical skills in managing low-risk and high-risk conditions in mothers and children in health care centers

Scope and clinical skill		Self-assessment of clinical skills	
		Positive ¹	Negative ²
Managing low-risk conditions	Prescribe supplements for pregnant women	85%	15%
	Nutrition education for mothers	84.6%	15.4%
	Abdominal examination	87.5%	12.5%
	Counseling and education about contraceptive methods	70%	30%
	Appropriate and effective control of growth and development of children under the age of five	90%	10%
	Prescribe supplements for children	90%	10%
	Nutrition education for children	100%	
	Awareness and training on vaccination programs	77.8%	22.2%
	Request routine tests during pregnancy	70%	30%
	Interpretation of routine tests during pregnancy	80%	20%
	Self-breast examination education for referee	100%	
	Breast examination	80%	20%
Managing high-risk conditions	Detection of risk signs in pregnant women	60.6%	39.4%
	Education concerning risk signs in pregnant women	60.6%	39.4%
	Diagnosis and referring of risk cases in pregnancy	60%	40%
	Diagnosis and counseling of problems during menstruation	60%	40%
	Diagnosis and counseling of problems in neonates	46.7%	53.3%
	Identifying and referring of malnourished children	58.8%	41.2%
	Diagnosis and management of common diseases in children	67.7%	32.2%
	Education and effective supports for women who cannot breed their children	63.3%	36.7%
	Counseling and management of mothers with hepatitis	20%	80%
	Diagnosis of genital tract infections	70%	30%
	Treatment of genital tract infections	70%	30%
	Diagnosis and management of abnormal breast cases	60.6%	40%
	Doing pelvic exam	60%	40%
	Doing Pap smear	70%	30%
Interpretation of Pap smear	60%	40%	
Insertion of an intrauterine device (IUD)	60%	40%	

1: I have confidence in my ability to fulfill the requirements; 2: I don't have confidence in my ability to fulfill the requirements

4. Discussion

The findings showed that 26.7% of the supervisors in health centers evaluated the midwifery graduates' confidence of Mashhad College of Nursing and Midwifery as unacceptable (Table 1). Mirzakhani et al. in 2011 stated that the majority of supervisors did not report the clinical skills of midwifery graduates as expected especially in high-risk conditions, and the self-assessment of graduates' clinical skills was significantly higher than that of their supervisors ($P < 0.001$) (13). In a similar study to evaluate the performance of graduates in the Bachelor of Nursing program from their own perspective and from their immediate supervisors' perspectives, similar results were obtained, and it was suggested that, since the gaps between the theoretical and the practical issues of training and clinical programs affect the ability of graduates to provide adequate performance, joint planning should be conducted by the training and clinical groups to help eliminate these deficiencies (14). Seyedi et al. reported that the staff's performance assessment scores as evaluated by the heads of the organizations were higher than the self-assessment scores of the employees (15), and our findings were not consistent with these findings. This could be related to the research environment, the importance of competence and performance of midwifery, and high expectations of midwifery authorities from midwifery staffs in providing services.

The findings of this research showed that the confidence level of midwifery graduates of Mashhad College of Nursing and Midwifery in fulfilling the midwifery skills of managing low-risk conditions was higher than that in high-risk conditions ($P < 0.001$). In a similar study, Mirzakhani et al. stated that the confidence of midwifery graduates in managing low-risk conditions in a maternity hospital was higher than that in high-risk conditions in a maternity hospital ($P < 0.001$) (13), and our findings were consistent with those findings. The similarity of the results of for our study and Mirzakhani et al.'s study may have been due to the similarity of the tools, methods, and populations used in the two studies.

Pakgozar's study aimed to determine the effect of the clinical exam on the self-confidence of students, and he stated that the highest level of confidence in students before and after the clinical exam was related to the skills of taking patients' histories and communicating with patients, skills that are in the area of managing low-risk conditions (16). In addition, Pakgozar showed that students' confidence in fulfilling the clinical skills required for managing high-risk conditions was at the moderate level. He also reported that the students gained confidence and skills during their training period that resulted in their having increased confidence in their ability to provide the required services after graduation (16), and our study's findings also were consistent with that finding. In contrast to the mentioned findings, Bahrini et al. aimed to determine the clinical competence of nurses working in a hospital, and the nurses reported their clinical competence as satisfactory, and no statistical difference was seen in the means of the clinical competence scores in the seven fields of helping tasks, training and guidance, diagnosis, management opportunity, treatment interventions, assurance of job, and the quality of organizational functions quality or in the total mean of clinical competence (17). The reason for our research findings' being inconsistent with those previous findings may be related to the different populations used and differences between the scopes of the nurses and midwives.

In this study, the Pearson test showed a relationship between the gaining of clinical skills and the increase in confidence in fulfilling them. Kordi et al. in a 2014 research aimed to determine the effect of web-based training and educational simulation on the confidence of midwifery students in fulfilling the skill of controlling postpartum hemorrhage, which is one of the skills of midwifery in managing high-risk conditions, concluded that training and gaining skills by web-based training and educational simulation can increase clinical skills and the confidence of midwifery students in fulfilling their responsibilities (18). Valizadeh et al. in a 2013 study entitled 'Study of simulation training effects on peripheral vascular catheterization of nursing students' showed that simulation training can increase the confidence of nursing graduates in peripheral vascular catheterization by increasing their skills (19). Tayebzadeh Nori et al. also indicated that increase of skills leads to increase of confidence (20).

Fulfilling clinical practices, educational intervention, and educational conditions are among the factors that affect the confidence of nurses (21). Frequently, the lack of skills and adequate confidence in fulfilling clinical skills is due to the lack of adequate clinical opportunities to use midwifery skills in real situations (12). Omidi et al. wrote that training students how to solve problems has a positive effect on increasing their confidence (10); also, the pattern of mentorship is one of the most important patterns used in the clinical environment, and it has a positive effect on the students' confidence (9). In the studies done about preceptorship in nursing and midwifery programs, useful findings have been mentioned, including social promotion, transition to the role of personnel, increasing confidence, improvement of efficiency, and clinical competence (22). Using a mentor in midwifery clinical education by creating appropriate supportive environment for clinical training can be effective on motivating learning and

improving the performance and confidence of midwifery graduates (23). Moradi et al. in a 2014 study in which the aim was to determine the relationship between self-confidence and risk-taking of female students, showed that there was a negative relationship between risk-taking of female students and their confidence ($r = -0.169$, $P = 0.023$) (24), and the findings of our study were inconsistent with their findings. The reason for this difference may be related to risk-taking, since, in social behavior, it has a negative relationship with self-confidence; however, it has a positive relationship with clinical skills.

5. Conclusions

The results showed that confidence of the graduates in fulfilling clinical skills in high-risk conditions was lower than their confidence in managing low-risk conditions ($P < 0.05$). Since confidence is considered as one of the main components of clinical competence and is an important indicator of ability and competence, the design of the educational curriculum should be given serious consideration. New designs should be considered that would increase of the students' confidence, and the curriculum should prepare midwives to adequately perform their professional activities in the changing health care system. In addition, training programs should be added to the program to prepare graduates who have the necessary clinical skills and who are prepared in terms of their behavioral and emotional dispositions so that they can build confidence in their ability to provide clinical midwifery services.

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Conflict of Interest:

There is no conflict of interest to be declared.

Authors' contributions:

Both authors contributed to this project and article equally. Both authors read and approved the final manuscript.

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