

## Curriculum Development in Midwife Education: A Systematic Review

Masumeh Ghazanfarpour<sup>1</sup>, Talat Khadivzadeh<sup>1</sup>, Shaghayegh Tamimi<sup>2</sup>, Fatemeh Rajab Dizavandi<sup>3</sup>, Leila Kargarfard<sup>4</sup>, Khatereh Shariati<sup>5</sup>, \*Masumeh Saeidi<sup>6</sup>

<sup>1</sup>Evidence-Based Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>2</sup>Midwife, Shiraz University of Medical Sciences, Iran. <sup>3</sup>Faculty Member, Department of Community Health and Psychiatric Nursing, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>4</sup>Instructor of Fatemeh School and Midwifery, Shiraz University of Medical Sciences, Iran. <sup>5</sup>Department of Medical Education, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>6</sup>Student Research Committee, Department of Medical Education, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran.

### Abstract

**Background:** One of the most important managerial resources in the health system is the existence of efficient, competent and strong human resources in an organization. In this regard, it is essential to strengthen and educate the human resources and develop a curriculum that meets the needs of society. This study aimed to determine the educational needs of midwifery students.

**Materials and Methods:** This study reviewed the national and international databases including MEDLINE, Scopus, ProQuest and Ovid and the Cochrane Central Register of Controlled Trials. In addition, SID, Iran Medex, Magiran, Medlib, Iran doc, and Google Scholar were searched from inception 1950 to 2018 to find equivalent keywords in Persian, using keywords such as: "Educational Needs, Midwifery, Needs Assessment, and "Curriculum".

**Results:** Eight studies were included in this systematic review. According to the findings, education needs to develop midwifery curriculum can be divided into three categories: clinical education, public course and specific course. In term of public course, English classes, Information technology lasses and research methodology; regarding specific course, non-pharmacological treatment for menopause complaints, abnormal uterine bleeding, hypertensive disorders, common gynecological infections, common neonatal diseases and infant mortality in crisis situations; in term of clinical education, revising training program in clinical, improving instructor function in clinical practice (skills), the empowerment instructor in appropriate monitoring and evaluating of students, and including of puberty counseling education as component of the maternal and child health internship in the field of midwifery students, should be considered.

**Conclusion:** Midwifery curriculum should be developed to be in according to midwifery educational needs, and also to support the learner's personal development by contributing to enhancing their self-respect and confidence, motivation and aspirations.

**Key Words:** Curriculum, Education needs, Iran, Midwifery, Systematic review.

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### Corresponding Author:

Masumeh Saeidi, Department of Medical Education, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran.

E-mail: Masumeh\_Saeidi@yahoo.com

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## 1- INTRODUCTION

Curriculum is a systematic and intended packaging of competencies (i.e. knowledge, skills and attitudes that are underpinned by values) that learners should acquire through organized learning experiences both in formal and non-formal settings. Good curriculum plays an important role in forging life-long learning competencies, as well as social attitudes and skills, such as tolerance and respect, constructive management of diversity, peaceful conflict management, promotion and respect of Human Rights, gender equality, justice and inclusiveness. At the same time, curriculum contributes to the development of thinking skills and the acquisition of relevant knowledge that learners need to apply in the context of their studies, daily life and careers. Curriculum is also increasingly called upon to support the learner's personal development by contributing to enhancing their self-respect and confidence, motivation and aspirations.

Monitoring and evaluation of the implementation of the curricula and its responsiveness to new challenges and requirements is also a critical element which needs to be assessed (1, 2). Organizing curriculum (activities, environments, goals, knowledge, learner and teacher interests, social conditions, technologies, values, etc.) as educational content is a series of judgments. Judgments are necessarily based on the type of knowledge, determining the highest value of knowledge for individuals, the scope and consequence of knowledge, how to focus on the learner's demands, exploring the type of technology needed to expand or purchase, etc. (3). Midwifery is one of the fields in medical science whose graduates at the bachelor's degree are trying to meet and promote the health of mothers, fetus, newborn, infant and children through providing reproductive health services, health care

during pregnancy, intra/postpartum, initial care of newborn/infant, training and counseling on sexual and reproductive health for women within the limits of assigned duties, encouraging safe and vaginal delivery, detecting abnormal conditions in mothers, fetuses or newborns, and performing emergency actions during pregnancy and timely referral of abnormal cases (4). One of the most important managerial resources in the health system is the existence of efficient, competent and strong human resources in an organization. In 2006, the World Health Organization reported this as an investment for today and the future. In this regard, it is essential to strengthen and educate the human resources and develop a curriculum that meets the needs of society (5). An essential step in the development and improvement of any educational program is the assessment of educational needs that are often neglected. Determining educational needs is the first measure for educational programming and the first factor for ensuring the quality and effectiveness of training function.

In fact, the study of learning needs is one of the most important components of developing a strategic training program that can take place in general or in local situations; priorities and resources should also be considered in addition to the needs. Educational needs can be characterized by inadequate knowledge, behavioral skills, or conditions that prevent the work from being done satisfactorily, but can be addressed through education (6-8). According to a study, nursing educational programs were responsive to meeting only 18% of their educational needs, and the quality of providing programs was at a poor level. Davis writes in this regard: "Those programs are satisfactory for doctors or audiences, which have been designed to be in accordance with the needs, opinions and views of the audience, and attractive and responsive to their most

important needs, as well as can upgrade their professional capabilities" (6, 9). Regarding the fact that multiple studies referred to different educational needs and due to the absence of a comprehensive study on the educational needs of midwifery for the development of midwifery education curriculum; this study was conducted to determine the educational needs of Iranian students of midwifery.

## 2- MATERIALS AND METHODS

This study reviewed comprehensively and profoundly the national and international databases including MEDLINE, Scopus, ProQuest and Ovid, and the Cochrane Central Register of Controlled Trials were searched using keywords such as: "Educational Needs, Midwifery, Needs Assessment, and "Curriculum". In addition, SID, Iran Medex, Magiran, Medlib, Iran doc, and Google Scholar were searched from inception 1950 to 2018 to find equivalent keywords in Persian.

No language limitation in the search was considered. Databases were searched by two authors (a midwifery and another was medical education student) independently. Disagreement was resolved by discussion, if necessary, a third independent party was consulted (Assistant Professor of Reproductive Health). Additionally, the search process continued on SID, IranMedex, Magiran, Medlib, Iran doc, and Google Scholar to extract equivalent keywords in Persian.

Quality of studies was evaluated using STROBE statement for cross sectional by two authors study, including objectives, study design, setting, bias, statistical methods, main outcome, limitations, interpretation and generalizability.

## 3- RESULTS

Characteristic of 8 studies included into systematic review is shown in

**Table.1.** In primarily search in national and international databases, 2,420 articles were identified; 2,382 articles were excluded after reading title and abstract. Also, 14 articles were assessed in detail. Finally, eight articles were included into systematic review (**Figure.1**). The first study Tork-zahrani et al. (10) conducted a study on ninety seven midwives working in private and public sectors in Rafsanjan (Iran). Aim of this study was assess Midwives' views about education needs of perimenopause women health related care.

The highest educational need were need to familiarity with non-pharmacological treatment (80%) for perimenopause followed by familiarity with sexual problem in perimenopause women (76.25%), need to able to consult with menopausal women (75.75%), need to able to prescribe to exercise to menopausal women (72%), aware of menopause symptom (58%), and nutrition during menopause (53%). In second study, Baheri et al. (11) performed a study titled "Perceived and real educational needs of midwives about prevention of mother-to-child transmission (PMTCT) of Human Immunodeficiency Virus (HIV), Hospitals affiliated to Mashhad University of Medical Sciences- 2015"; 133 midwives participated in this cross –sectional study and completed questionnaire about perceived needs and real needs about PMTCT; 63.9% of subjects had high level of perceived needs and 87.2% of subjects had real high educational needs.

Their studies showed that highest perceived needs were: Acquired Immune Deficiency Syndrome (AIDS) diagnosis and its treatment and the lowest perceived needs are related to scope of physiopathology. In regarding real needs, highest and lowest educational needs were knowledge of transmission way and treatments and follow-up, respectively. The **third** study, Sereshti et al. (6) conducted a study to assess educational

needs of midwife alumni work in health care centers. They state that midwives needs to continue educational including English class, Information Technology (IT) in obstetrics, research methodology, religious law, hypertensive disorders, neonatal medical treatment abnormal uterine bleeding, and common genital tract infections. The **fourth** study, Fazali et al. (12) believe to integrate oral health in midwifery curriculum. They mentioned several reasons: 1- lack of access to dentists (geographic and economical), 2- frequent visit during pregnancy, 3- easy access to midwifery, and 4-importance of dental and oral in pregnancy, 5- inappropriate hygiene of oral and dental.

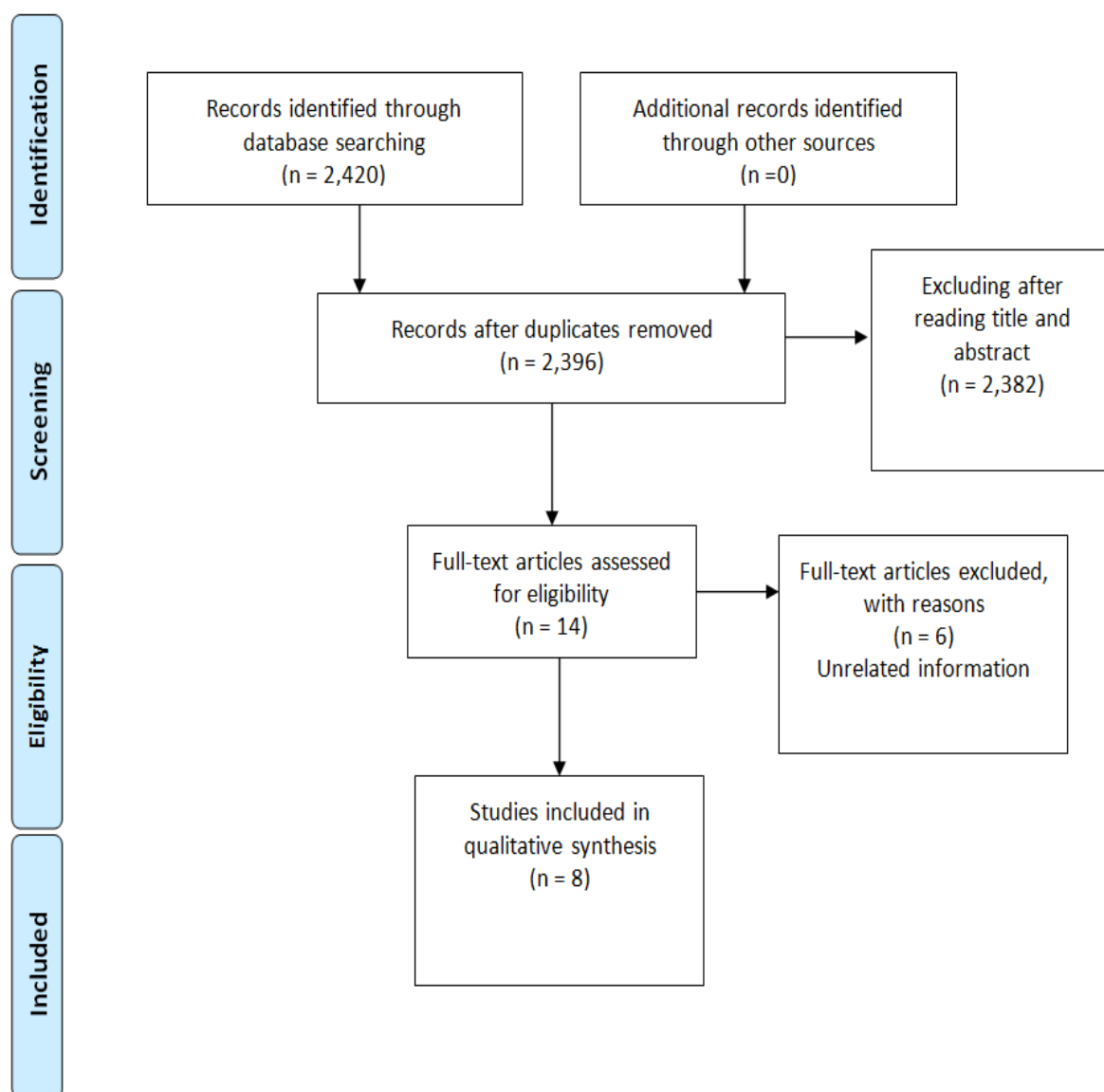
The **fifth** study, Taghizadeh et al. (13) conducted a cross-sectional study on 235 final-year BSc and MSc in midwifery who was student in Tehran University. Aim of this study was to identify "Educational needs midwifery student about mother and infant mortality in crisis situations"; 86.8% of students mentioned that University education did not help them very much for taking role in crisis situations. Only 10% of students pass some course about crisis. Authors suggested revising Educational curriculums to include issues about prevention of mother and infant mortality in crises in educational curriculum.

The **sixth** study, Pournamdar et al. (14) performed a study to assess nurse and midwifery student satisfaction of clinical education in hospital Zahedan (Iran); 142 nursing, midwifery and operation room participated in this cross-sectional study. Results of this study showed that in the training plan scope (76.8%), consent of the instructor scope (70.2), inappropriate behavior student (33.9%), the learning environment scope (24.6%), and the

monitoring and evaluation scope 43% of student s reported unsatisfied situation. The **seventh** study, Mokhtari zanjani et al. (15) conducted a descriptive and analytic studies on 43 midwives working at health-care centers. The highest needs educational are new drug and treatment in obstetrics and gynecology (73%), equipment and new care technique (61%), emergencies in obstetrics and gynecology (22.9).

The **eighth** study, Hassanzadeh Bashtian et al. (16) assessed the view of midwifery students towards the inclusion of puberty counseling education as component of the maternal and child health internship in the field of midwifery students. In this study conducted in the first semester of academic year 2010-11 in Bojnourd (Iran), puberty counselling education as a part of maternal and child health internship was provided to midwifery students of an entry (n=21) for familiarizing with puberty education and counseling at Hafeziyeh Girls' Middle School. The puberty education was implemented by the midwifery students under the supervision of their respective mentor. The results showed that 96% of students thought the puberty education was very suitable as part of maternal and child health internship and 40% of them expressed that the quality of the course was very good. The optimum time for the internship was three days for 50% of the participants. Further, 80% of subjects wanted the course to be student-centered.

Because the puberty education and counseling are included in the syllabus of courses in maternal and child health for the midwifery students and the counseling has been listed in the duties of the midwifery, it is imperative to include this course in the internship program for the midwifery students.



**Fig.1:** Flow diagram of study selection in present meta-analysis.

**Table-1:** Characteristic of 8 cross –sectional studies included in this systematic review

Authors, year, Reference	Objective	Study design	Setting	Bias	Statistical methods	Main results	Limitations	Interpretation	Generalizability
Tork-zahrani (10), 2006	😊	😊	😊	😞	😊	😊	😊	😊	😊
Fazali (12), 2010	😊	😞	😊	😊	😞	😊	😞	😊	😞
Sereshti (6) 2011	😊	😊	😊	😞	😊	😊	😊	😊	😞
Mokhtari zanjani (15), 2011	😊	😊	😊	😞	😊	😊	😞	😊	😞
Hassanzadeh Bashtian (16), 2013	😊	😊	😊	Congress Information is not available.					
Baheri (11), 2014	😊	😊	😊	😞	😊	😊	😊	😊	😊
Taghizadeh (13), 2015	😊	😊	😊	😞	😊	😊	😊	😊	😊
Pournamdar (14), 2015	😊	😊	😊	😞	😊	😊	😞	😊	😞

😊 : Yes; 😞 : No.

#### 4- DISCUSSION

To the best our knowledge, this is the first systematic review addressing comprehensively educational needs of midwiferies. According to these findings, education needs to develop midwifery curriculum can be divided into three categories: clinical education, public course and specific course. In term of public course, English classes, Information Technology (IT) classes, research methodology, religious law are educational priority; regarding specific course, Educational needs is non-pharmacological treatment for menopause complaints, abnormal uterine bleeding (AUB), familiarity with sexual problems and their treatments in perimenopause women, able to consult with menopausal women, aware of menopause symptom, knowledge of AIDS transmission way and AIDS diagnosis, puberty education and counseling,

more course regarding hypertensive disorders, neonatal medical treatment and common gynecologic infections mother and infant mortality in crisis situations; in term of clinical education, revising training program in clinical, improving instructor function in clinical practice (skills), improving instructor behavior with students and the empowerment instructor in appropriate monitoring and evaluating of students, should be considered. Menopause is one of stages is associated with many complaints (16-18). Treatment for menopause symptoms can be divided in to two groups pharmacological and non-pharmacological. Pharmacologic treatments are associated with adverse effect. Therefore, both health provider care and people has been interested in non-pharmacological (19-21). The finding of Tork et al. (10) indicated that midwives regarded non-pharmacological therapy as the first educational needs. Despite of over two

decades of research on educational needs of midwives, current midwifery curriculum did not prepared midwives to consult with menopause women. These findings confirmed by Ghazanfarpour et al. in previous studies on menopause; many of participants in their studies mentioned inadequate information and knowledge regarding diagnosis of menopause, contraindication to prescript hormone therapy, and marital relationship in menopause women. Also, their other finding showed inadequate knowledge of menopausal women regarding sexual problem and menopause (22-24). Therefore, with regard to inadequate knowledge in both health care provider and public, there is a need to develop midwifery curriculum that pays much attention to these findings.

In a study by Pournamdar et al. (14), students mentioned that they were unsatisfied with training program in clinical, instructor function in clinical practice (skills), instructor behavior with students and instructor in appropriate monitoring and evaluating of students. With regard to low satisfactions levels of students of educational program, it is seems that educational curriculum should be revised. AIDS is one of the greatest public health challenges in both developing and developed countries (25).

Based on the reports of Ministry of Health published statistics regarding number of patients with HIV/AIDS in March 21,2014, there were 29,414 of people affected with AIDS (24). Despite of AIDS epidemic (27), according to a study included into systematic review, perceived and real needs of the most midwives were high about prevention of mother-to-child transmission of HIV. In response to high number of women and babies affected with HIV/AIDS in South Africa, government was formulating national policy PMTCT

(28). Therefore, there is a need to integrate PMTCT into the Iran midwifery curriculum.

#### **4-1. Limitations of the study**

Despite of this fact that we attempted to perform a comprehensive search, it is possible that some relevant studies were missed. Most of studies included into systematic review assessed only perceived needs. It is required that a questionnaire be designed based on findings of the systematic review to assess both perceived and real needs. The findings of this systematic review can be used to develop Iran midwifery curriculum.

#### **5- CONCLUSION**

Midwifery curriculum should be developed to be in according to midwifery's educational needs to achieve a successful program for educate and strength efficient, competent and strong human resource program for educate and strength efficient, competent and strong human resource. It is crucial that full engagement and partnership be developed between universities, health services and clinicians to resolve the ownership of, and responsibility for, practice based education and move Iran midwifery education towards internationally recognized best practice.

**6- CONFLICT OF INTEREST:** None.

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