

Models for Providing Midwifery Care and Its Challenges in the Context of Iran

Sedigheh Moghasemi¹, Abouali Vedadhir², Masoumeh Simbar^{3*}

¹Reproductive Health and Midwifery Counseling Research Center, Department of Midwifery, Instructor, Golestan University of Medical Sciences, Gorgan, Iran,

²School of Anthropology Associate Professor of Anthropology & Health Studies, Faculty of Social Sciences, University of Tehran, Tehran, Iran

³Midwifery and Reproductive Health Research Center, Department of midwifery, Professor, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Corresponding Author: Masoumeh Simbar, Shahid Beheshti University of Medical Sciences, Tehran
Email: msimbar@sbm.ac.ir

Received: 02/21/2015; Accepted: 07/11/2015

Abstract

Introduction: Looking at the role of midwives and the need to invest in this profession in order to achieve development objectives.

Objective: The aim of this study is to review the characteristics of midwifery care presentation models in the world as well as in Iran and investigate its challenges in the country.

Materials and Methods: This study is a review done in 2016. First, all papers published in Persian and English until 2016 were searched in online databases. Overall, 20 English papers, one Persian paper, and several related websites were used for accurate explanation, interpretation, and search of every care model. During investigation of papers, emphasis had been placed on introduction, results, and discussion of the characteristics of midwifery care models. The challenges relating to the design and application of these care models in Iran have been discussed and some solutions have been offered.

Results: Although there are various definitions about Models of midwifery care, the boundary between midwifery care models and care models in which midwives are present is clear. Today, midwifery care is going through a transformation and redefinition process there has been changes in response to women's needs to help the development of the midwifery profession. Midwifery-led care models have various advantages for mothers and babies; they bring about a high level of satisfaction among pregnant women, reduction of undesirable outcome for mothers and babies, and empowerment of women.

Conclusion: The prerequisite for promotion of mothers and babies' health is giving women the rights to informed choose for choice of child birth and delivery methods. So, design and implementation of midwifery care models must correspond with the culture, beliefs, and knowledge native to each region and with constant protection of security and cultural safety of mothers during childbirth.

Keywords: Patient Care, Midwifery, Pregnancy, Mothers

Please cite this article as: Moghasemi S, Vedadhir A, Simbar M; Models for Presentation of Midwifery Care and its Challenges in Iran: A Review Study. J Holist Nurs Midwifery. 2018;28(1):64-74

Introduction

In the entire world, midwives are the first care providers for parturient women [1]. According to the definition by International confederation of midwives, a midwife is a person who has accomplished midwifery training approved in their residential country which is in accordance with the qualifications of the midwifery profession and global standards of this confederation in midwifery training. Furthermore, they have acquired the essential prerequisites for obtaining work permission in midwifery and use of the “midwife” title. They also have a qualification in midwifery [2].

Pregnancy, labor, and post-partum cares for the mother and baby are performed with midwives’ responsibility. Furthermore, midwives have important duties not only toward women, but also toward the family and society [2, 3]. The World Health Organization (WHO) also considers midwives as the most suitable and efficient healthcare providers during pregnancy and natural labor [4] and are the major care providers to mothers in countries with the best birth implications in the world such as Netherlands, Sweden, and New Zealand [5].

In the past, during labor, mothers enjoyed companionship and care by other women. However, today routine care has substituted continuous support of mothers during labor [6]. The philosophy behind responsibility-based midwifery care is participation in self-care, decision-making, self-confidence, and women’s self-esteem; elements that result in empowerment of women and protect their cultural safety and security. Midwifery care model means dealing with labor, a deep emotional experience, as well as a physiological and natural process. Midwives are the most suitable care providers to deal with women

during labor, pregnancy, and post-partum period. In this model, the care of each woman is unique, continuous, and non-compulsory. Midwifery care is intrinsically holistic and can understand a woman’s social, emotional, cultural, religious, physical, and mental experiences [7]. Midwife-led care, individual midwifery care or woman care are different names for this type of care, presented as different forms in different countries. Traditionally, this model is presented in two forms. The first is individual care, where annually each midwife has the responsibility of providing midwifery services to 40 mothers, which is common in England. Another approach is team-centered midwifery care, whereby around 7–8 midwives offer a similar level of care to a number of women in a shared way, which is common in Australia [8].

In 2012, the United Nations population fund (UNFPA) and international confederation of midwives issued a joint statement in commemoration of Midwives’ Global Day. In this statement, investing in human resource for the healthcare profession, especially midwives, has been considered as one of the best investments for any country to accelerate the fourth and fifth objectives of the millennium [9].

Although definition of the midwifery profession and its job description in Iran are according to the definition given by International Confederation of Midwives and has been reemphasized in the midwifery document: future perspective [4], it seems that the practical approach to presenting services and the model for presentation of midwifery care in Iran are different from those in countries leading in natural labor. Indeed, in spite of the global attention to the role of midwives and emphasis on investment for this class, use

of capacities of this profession has been neglected in Iran. Thus, Iran has the second rank for delivery through cesarean. The aim of this study is to determine and review midwifery models in pregnant women's care and labor in Iran and the world to answer this question: What are the special models for presentation of midwifery care in the world and what are their characteristics? How is the midwifery care presentation model in Iran?

Materials and Method

This is a review study done in 2016. Persian and English papers about models for midwifery care were examined at the Academic Jihad Scientific Information Database (SID), the Information Bank for Iranian Medical Sciences Papers (Iranmedex), the Information Bank for Iranian Journals (Magiran), the international information database of the US National Library of Medicine (PubMed), google scholar, as well as relevant websites including those of the health ministries of Iran, England, Australia, Queensland, International Association of Midwives, Royal College of Midwives, and WHO.

In this investigation, all papers published in Persian literature were searched with no time constraint with the keywords "care model" and "midwifery model". On the other hand, in English, the search was done with the following keywords: midwife-led continuity models of care team midwifery care caseload midwifery care medical-led models care model woman-center, woman-center model, and woman-center model. The objective of this study was not the investigation of all papers within a certain period of time. Rather, the target was to respond to the research questions and outline an overview of the most common midwifery models of care. Therefore, investigation of the newest papers for merely answering this question

seemed sufficient. Emphasis has been on accurate investigation of the introduction, results, and discussion and introduction of the characteristics of the care model. Overall, 20 English papers and one Persian paper were examined.

Result

The result of the present study about midwifery models followed by:

Midwifery model of care

There are practically several definitions of midwifery models of care and there is no consensus on a single definition. The knowledge of midwifery models of care which are guides for practice and education is growing in the US, New Zealand, Scotland, Sweden, and Iceland. These philosophical models have both similarities and differences associated with cultural diversity [10]. A midwifery model of care should include characteristics such as proceeding towards midwifery philosophy, professional contribution of the midwife for providing constant care, presence of midwives with special knowledge, attitudes, and skills for provision of high quality care before childbirth until six weeks after delivery, and passing natural labor without intervention. In addition, a care-providing midwife, according to this model, has up-to-date and evidence-based knowledge, and adequate skills for clinical reasoning that are essential for independent decision-making. They also have qualities like the ability to collaborate and trust, along with confidence required for measures based on professional judgment in natural and unnatural states and must be ready to accept responsibility for decision-making. Presence of all these characteristics is essential and violation of even one of these qualities violates this model [11]. In woman-centered models, these same principles are emphasized [12].

For example, one of the major characteristics of midwifery care is continuity of care, which means a lower number of care providers during pregnancy and presence of familiar midwives in labor [8]. This signifies that the person or people providing care to the mother in each visit are constant and during labor and pregnancy, the same midwife, who is already known by the mother, is present. Choice and control are other major concepts of women-led care, implying presentation of sufficient information to women. When the mother has enough information, she would be able to adopt care decisions herself with the help of midwives [8]. Within this framework, women are no longer considered as passive creatures. Rather, they are regarded as builders or active constructivists [13].

Acting according to this model includes monitoring physical, mental, and social health of the mother throughout the entire cycle of childbearing, provision of training, consultation, and individual pregnancy care, constant care during labor and pregnancy, and postpartum support; minimizing technological interventions; identification and referring women to gynecologists, when required [14].

Traditional birth attendant, midwife, midwife and care model

While defining midwife and her role in models of care to mothers, Cheyney presented an interesting plan. According to her, a distinction should be made among the three terms of midwife, traditional birth attendant, and medwife. The right hand side of the image represents medwives who work in hospitals alongside physicians, i.e. medicalized midwives or assistant of physicians (medwife), who are indeed midwives who have a medical care model. In the other side of the spectrum

stands traditional, spiritual, or extremist midwives or traditional birth attendants who have no access to technology and these midwives live in rural regions and are the only option for low income women. In the center of the spectrum lies holistic midwives, who have both the technology and knowledge. Although all the people of this spectrum call themselves midwife, each of them has a special viewpoint, and thus a different performance [15]. Indeed, midwife means holistic care in the midwife care model.

Midwife-led continuity of care models

Midwife-led continuity of care models emphasize continued care throughout the entire pregnancy period and labor and are presented as team midwifery models or caseload midwifery models or group work/practice (MGP midwife-led continuity of care models), and one-to-one models [1,16]. In these models, midwives are responsible for the design, organization, and provision of services to women right from the time of pregnancy until the postpartum period. The aim of this model is providing care to healthy women with low risk pregnancies in hospitals or the society. In some models, midwives provide constant care to all women in a certain geographical region. It should be noted that “continual care” is beyond the concept of “familiar midwife in labor” and includes pre-and post-birth care as well [17].

In all forms of constant care, the midwife or midwifery team is on call during the care period [1]. Although in some schemas of midwifery team, “constant care” is achieved despite lack of “constant care provider”, the constant care provider is the major and key element in constant care [18].

Constant care means midwife or midwives who are in charge of caring for the mother

and the baby throughout the entire period of pregnancy, labor, and after it. The larger the midwifery team, the less the achievements of “constant care” objective, as the possibility of further care by a certain midwife diminishes.

Compared to the physician-oriented or shared models of care, where a different health profession contributes in organization and providing care, midwife-led care model brings about various advantages for both the mother as well as the baby and has no obligation. This model encompasses the birth of a premature baby, all types of fetal and fetal embryonic mortalities, limits usage of topical anesthesia as well as interventions such as amniotomy, episiotomy, labor with fewer instruments, and chance of spontaneous vaginal labor [1]. In addition to bringing about high satisfaction for mothers and decreasing unfavorable implications for the mother and baby [19, 1], this model has been a successful solution and empowerment of women and gives them the right to choose the method of delivery [19].

Midwifery teamwork or caseload midwifery

In midwifery teamwork, which is sometimes called caseload midwifery, women are taken care of at home by a midwife (primary midwife), who is supported by a small group of midwives throughout the entire period of pregnancy, labor, and the first six weeks after delivery [20]. The care provided will be based on the hospital’s instructions and protocols. In case further support is needed, for example when the primary midwife has two women in labor simultaneously, or when the labor of a woman has been delayed or if labor is going to occur when it is not the shift of the primary midwife or when she is on leave, one or two other midwives are introduced during pregnancy. A full-time

midwife of this type usually takes care of 40–45 women annually [21]. In this type of model, midwifery care concentrates on personal needs of women and is in a sense “women led” [20]. As the leaders of care provider to women, midwives provide all necessary care to pregnant women and if required, they have access to consultation and other guides of health (e.g. gynecologists and pediatricists) [22]. Furthermore, in case of incidence of any complication and need for physician’s interventional, the primary midwife will continue provision of care in addition to the care provided by the physician [20, 21]. Visiting pregnant women by medical experts takes place in different places such as house, very small pregnancy facilities, and even very large specialized hospitals [22]. In this model, the midwife is able to provide all midwifery care for delivery at home and the site of birth depends on the number of rooms and special needs at the time of labor. In addition, some criteria including the general health, midwifery background, and the current place of residence of mother are also considered [20]. As mentioned previously, size of the team matters; a larger midwifery team means fewer visits of a certain midwife to the woman and less opportunity for development of a meaningful relationship with the mother. Greater continuity and better relationship between midwives and mothers will be achieved through shrinking the team size [23]. This model is a suitable method for decreasing the rate of cesarean in regions with a high incidence of cesarean [24].

In team midwifery care model, the provision of services is based on key concepts of individual care and holistic approach. The aim of this model is to empower women and families, especially from minority and deprived groups, with the aim of active participation in decision-making regarding labor. This model is an

effective method for achieving all-round benefits and provision of services is adequate [25]. It achieves better end results during birth and improves multifaceted support services such as psychiatry. It helps control household aggression in socially disadvantaged women [26].

One-to-one midwifery model

In this model, most midwifery cares are provided by one midwife, who is also available at the time of labor and pregnancy. For cases when the major midwife is not available, every midwife has an assistant who is also known to the mother. Midwives exist in six assistant groups and work close to each other. Compared to the teamwork model, here, women experience a far higher rate of care continuity [23].

Dedicated or one-to-one care and labor means continuous companionship and clinical care of a skillful care provider across all stages of pregnancy and meeting the physical and psychological needs of a pregnant woman by providing emotional support, physical relaxation, and giving information to women to tackle their fears or concerns and use of non-pharmacological pain control methods. This type of care leads to less chance of solving the labor pain with instruments and cesarean [27].

Centering parenting mother infant dyad care model

Ideally in this model, the care during pregnancy is provided to a group of women continually. Group prenatal care involves 10 sessions throughout the entire pregnancy period. After labor, taking care of the healthy baby and tackling health problems for one year after labor is the function of this lot of midwives. There are nine group sessions consisting of 6 to 7

mothers and their infants. The parent-centered model takes care of the fact that the health of mothers and babies is interwoven and evaluation and interventions are more suitable and effective by considering both of them [28]. To understand the difference between different midwifery care models and other care models better and in which midwives are merely present per se, in the next part, models in which the midwife is present but which are not a midwifery care model have been investigated. Traditional model of General Practitioner (GP) attached community midwives, midwifery model of care under supervision of an obstetric, and biomedical model or physician centered model are among these models which are explained further. The hegemony of physicians and provision of care and medical interventions are the similarities across all these models.

Traditional model of General Practitioner (GP) attached community midwives

In this model, midwives work alongside general practitioners. The workload of a midwife includes taking care of families who have registered with physicians and are sometimes distributed in a wide area geographically [29]. If required, the family doctor, and not the midwife, refers the mother to a gynecologist. Obstetric nurses (who are different from midwives or midwives) provide pregnancy care and the care immediately following labor, not at the level of decision-making, where labor is tackled by a physician [1].

Midwifery model of care under supervision of obstetric

In the models under supervision of specialists, the philosophy of the midwifery are not clear in practice or during labor and there is no familiar midwife. The scope of activity of the midwife is determined by responsible

gynecologists and if the mother is at risk, midwifery care is broken irrespective of the needs of the woman. In low risk cases, the woman should have been recommended continually in accordance with the conduct of prenatal experiments. Otherwise, it is considered as a risky case and not eligible for receiving continuous midwifery care. Manipulating the labor process is common and medical track is compulsory. In this model, midwives lose their clinical independence and reasoning abilities [11].

Biomedical model

Today, the birth process has been increasingly influenced by medical technology [30]. Medicalization is a process through which nonmedical problems and conditions are defined as medical problems. They are controlled and managed accordingly and are treated as disease or illness. States such as menopause, infertility, and obesity are some examples [31]. Transferring the birth from the home to hospital and controlling the birth process by gynecologists are clear examples of the medicalization phenomenon [13]. Medicalization is one of the potential reasons for increased healthcare costs around the world [31].

In this model, labor is not a natural or normal process [30]. American College of Obstetricians and Gynecologists (ACOG) largely supports this care model. Therefore, this model is common in North America where specialists are the primary care providers during the pregnancy period for most women. A gynecologist (not necessarily the one who has provided pregnancy period care) is present during labor and nurses provide care during and after labor [1].

The numerous physicians during early diagnosis results in conducting continuous preventive interventions and attention

given to women with risk factors is the same as to the women who is really suffering from the disease. In the biomedical or physician centered model midwives perform a routine job under the supervision and guidance of a specialist [32].

Midwifery care model in Iran: A state analysis

Although midwifery has been defined as an independent profession in Iran [4], no independent professional mechanisms have been considered for it. Therefore, in the healthcare system, maternity care is somehow isolated and managed with the biomedical approach. Indeed, mother care is often provided by midwives, yet it is gynecologist led in such a way that the real care provider might be the midwife. However, the gynecologist is responsible for all the care provided to women throughout the entire periods before, during, and after the labor [1].

In urban health centers, at least two midwives or even more are in charge of visiting pregnant women according to the national safe motherhood plan. In the first visit, which is the visit for filing, all mothers should be examined by a general practitioner. In follow-up cares, any complication or issue is investigated by a general practitioner from the center and if required medication or para-clinical investigations are requested. According to instructions, sometimes the midwife refers some cases directly to the gynecologist or Obstetrician or other specialists. Based on the national plan for safe motherhood, mothers should be encouraged to undergo labor in hospital and around 87% of labor is performed in hospitals. During the prenatal period, care-providing midwives have no involvement in the labor process and the first care after labor. Postpartum care includes three-time care: The first care is in the obstetrics ward of the

hospital and before discharge, the second care is provided on the 10th to 15th day, and the third care is given on the 42nd to 60th day. Investigation of the file and getting familiar with the status of a mother are required across all the three postpartum types of care [33], suggesting there is no need for care by a single person or certain people.

In healthcare centers, care-providing midwives are not on call and if pregnant women face emergency problems during hours outside working hours (8 am–2 pm) or on official holidays, they should visit other centers including hospitals. Labor in the house is illegal, and it is carried out in hospitals, except for remote areas. Most labor pain is cared for in hospitals with the responsibility and supervision of Obstetrician [34].

Approval and declaration of a bylaw for establishing a center for consultation and provision of midwifery services [35] as well as a program for promotion of natural labor in the form of health transformation plan [36] can be seen as attempts for improving and developing midwifery activities. This will promote midwife-centered care in Iran. One of the strong points of the centers for consultation and midwifery services is holding preparatory classes for labor and the possibility of providing labor and delivery care by the center's midwives in state and private centers under contract [37]. This will help in the implementation of continual or midwife-centered care model. Furthermore, in line with the attempts of the midwifery and administration of the health ministry and after implementation of the national labor promotion program since May 2014, some measures have been taken for promoting natural labor with a physiological approach. Some examples are holding physiologic labor courses for enhancing skills and empowering

midwives as well as holding preparatory classes for labor in hospitals and health centers [36]. However, if we pay attention to the definition of midwifery care provision models [11], it is clear that there is a long way to go before such care models are implemented in a big way.

Discussion

The rebound to midwifery services, a desire for midwife-centered care model, and introduction of direct entry into midwifery programs [29] are all in line with caring for the natural capacity of women for a successful and intervention-free labor and coping with medicalization of labor [8].

Unlike midwives, who see pregnancy and labor as a natural process, the view of physicians to pregnancy and labor are that they are risky events requiring care and medical intervention [30]. In both midwife-centered and physician-centered models, the health and safety of mothers and babies are of utmost importance, but the midwife view to pregnancy is like a pure vital experience with different emotional, social, cultural, and mostly spiritual meanings and dimensions. If it is a positive experience, it develops a sense of empowerment and high self-confidence in women, reinforcing the relationship between parents and babies as well as consolidating the relationship between other children and the baby. Furthermore, the baby is not the only the important implication of pregnancy. Pregnancy, and especially the first pregnancy, is an important evolutionary process for women. Pregnancy leads to the birth of a child and also results in a kind of metamorphosis for the woman concerned as she becomes a mother. Therefore, the positive experience of being a mother is important [32].

In addition, continuous care models of midwifery are followed by cultural safety

and security of mothers, which are the prerequisites for optimization of healthcare for women and their babies. Cultural safety includes protecting the beliefs, actions, and values of all cultures. The trend of movement towards cultural security in midwifery is acknowledging and approving the unique relationship between midwives and women as well as the continuity of care results in consolidation of this relationship. Cultural Safety places women in the center of midwifery care by identifying the women's needs and establishing cooperation and relationship based on trust [38]. The role of culture in providing healthcare and promoting health services are among the undeniable advantages of the midwifery profession [38, 39].

It seems that the development of a suitable inter-profession cooperation for midwives and specialists [40], paying attention to the professional independence of midwives by relevant institutions during development and operationalization of protocols and instructions [35, 41], and the provision of constant midwife-centered care in the educational program of midwifery students [42] would facilitate the development of midwife-centered care models in Iran.

Midwifery-care models in Iran have a poor body of knowledge and research as well as intervention background. Further, there is no proper and comprehensive understanding about the needs of women, men, and families regarding midwifery care. Therefore, there are numerous challenges and unanswered questions in this regard. For example, how is the quality of care during pregnancy, labor, and after it? What are the factors influencing care? What are the obstacles and facilitators of midwife-centered care? Conducting studies with different quantitative, qualitative, or mixed methods for interpretation of the meaning of "midwifery care" and characteristics of the care-providing midwife as well as answer

to the above questions are essential. On the other hand, considering the importance and necessity to develop the midwifery profession in Iran as well as services based on the society's needs, designing midwifery care models in line with Iranian-Islamic culture, beliefs, ethnoscience, and local knowledge are needed to promote the health of mothers, babies, families, and the Iranian people.

Conflict of interest

No conflict of interest has been declared by the authors.

Author contributions

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE

(<http://www.icmje.org/recommendations/>):

- 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.

References

1. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. The Cochrane database of systematic reviews. 2016;4:CD004667.
2. International confederation of midwives. ICM International Definition of the Midwife; 2011. [Cited 2016-Jul-16]. Available from: <http://internationalmidwives.org/who-we-are/policy-and-practice/icm-international-definition-of-the-midwife/>
3. Officers UC. Midwifery 2020 delivering expectations. London: Department of Health; 2010.
4. Ministry of health and medical education of The IRI. Midwifery vision Act. 2012:50.
5. Midwives Alliance of North America. Midwifery Model undated [cited 2016-Jul-10]. Available from: mana.org/about-midwives/midwifery-model.
6. Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. Cochrane Database Syst Rev. 2013 Jul 15;7:CD003766. doi:

- 10.1002/14651858.CD003766.pub5.
Review.PMID: 23857334
7. International confederation of midwives. Core Document; Philosophy and model of midwifery care; 2014 [cited 2016-Jul-10]. Available from: http://www.internationalmidwives.org/assets/uploads/documents/CoreDocuments/CD2005_01%20V2014%20ENG%20Philosophy%20and%20model%20of%20midwifery%20care.pdf
 8. Carolan M, Hodnett E. With woman' philosophy: examining the evidence, answering the questions. *Nurs Inq*. 2007 Jun;14(2):140-52.
 9. World Health Organization. International Day of the Midwife 2012; Partners raise their voices for midwives.[update in 2012 May 7; cited 2014 march 15]. Available from: http://www.who.int/pmnch/media/news/2012/20120507_id_midwives/en/. 7 MAY 2012
 10. Berg M, Asta Ólafsdóttir O, Lundgren I. A midwifery model of woman-centred childbirth care--in Swedish and Icelandic settings.*Sex Reprod Healthc*. 2012 Jun;3(2):79-87.
 11. Fahy K. What makes a midwifery model of care safe? *Women Birth*. 2012 Mar;25(1):1-3.
 12. Royal College of Midwives. Woman Centred Care; position statement; 1996 [Updated: June 2008; cited in 2014 Apr 10]. Available from: <http://www.rcm.org.uk/EasysiteWeb/getresource.axd?AssetID=121546>. 2011.
 13. Vedadhir AA, Sadati SMH, Taghavi S. A Constructionist Reflection on the Caesarean Section in Tabriz, Iran. *Iranian Anthropological Research*. 2011;2:111-35. Persian.
 14. Citizens for midwifery. The midwives model of care. undated [cited 2016-Jul-10]. Available from: <http://cfmidwifery.org/mmoc/define.aspx>
 15. Cheyney M. Born at home: The biological, cultural and political dimensions of maternity care in the United States. USA: Cengage Learning; 2010.
 16. Queensland government Queensland Health. Policy Directive: Clinical Governance for Midwifery Models of Care. 2008 [cited 2016-Jul-10]. Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.395.6474&rep=rep1&type=pdf>
 17. Williams K, Lago L, Lainchbury A, Eagar K. Mothers' views of caseload midwifery and the value of continuity of care at an Australian regional hospital.*Midwifery*. 2010 Dec;26(6):615-21.
 18. Farquhar M, Camilleri-Ferrante C, Todd C. Continuity of care in maternity services: women's views of one team midwifery scheme. *Midwifery*. 2000 Mar 31;16(1):35-47.
 19. Anwar S, Jan R, Qureshi RN, Rattani S. Perinatal women's perceptions about midwifery led model of care in secondary care hospitals in Karachi, Pakistan.*Midwifery*. 2014 Mar;30(3):e79-90.
 20. Government of south australia, women's and children's hospital. Midwifery group practice. [cited in 2016 Jul 16]. Available from: http://www.wch.sa.gov.au/services/az/divisions/wab/mid_gp/
 21. McLachlan HL, Forster DA, Davey MA, Lumley J, Farrell T, Oats J, et al. COSMOS: Comparing Standard Maternity care with one-to-one midwifery support: a randomized controlled trial. *BMC Pregnancy Childbirth*. 2008;8:35.
 22. Davis DL, Walker K. Case-loading midwifery in New Zealand: making space for childbirth. *Midwifery*. 2010 Dec;26(6):603-8. doi: 10.1016/j.midw.2009.01.004. Epub 2009 Feb 25.
 23. Australian Health Ministers' Advisory Council 2012, Clinical Practice Guidelines: Antenatal Care – Module 1. Australian Government Department of Health and Ageing. Canberra: Commonwealth of Australia. Available from: <http://www.health.gov.au/internet/publications/publishing.nsf/Content/clinical-practice-guidelines-ac-mod1>
 24. McLachlan HL, Forster DA, Davey MA, Farrell T, Gold L, Biro MA, et al. Effects of continuity of care by a primary midwife (caseload midwifery) on caesarean section rates in women of low obstetric risk: the COSMOS randomised controlled trial. *BJOG*. 2012;119(12):1483-92.
 25. Khazaezadeh N. Benefits of sure start caseload midwifery. *RCM Midwives*. 2005;8(10):422-3.
 26. Rayment-Jones H, Murrells T, Sandall J. An investigation of the relationship between the caseload model of midwifery for socially disadvantaged women and childbirth outcomes using routine data--a retrospective, observational study. *Midwifery*. 2015;31(4):409-17.
 27. Farahani SM, Malekzadegan A, Mohammadi R, Hosseini F. Effect of the one to one midwifery care during labor on modes of delivery. *Iran Journal of Nursing*. 2005 Oct;18(43):71-82.
 28. Bloomfield J, Rising SS. CenteringParenting: An Innovative Dyad Model for Group Mother-Infant Care. *J Midwifery Womens Health*. 2013;58(6):683-9.
 29. Sandall J. midwives' burnout and countinuity of care. *British Journal of midwifery*. 1997;5(2): 106-111.
 30. Adams J. An exploratory study of complementary and alternative medicine in hospital midwifery:Models of care and

- professional struggle\$. Complementary Therapies in Clinical Practice. 2006;12:40–7.
31. Conrad P, Mackie T, Mehrotra A. Estimating the costs of medicalization. *Social Science & Medicine*. 2010 Jun 30;70(12):1943-7.
 32. Rooks JP. The midwifery model of care. *Journal of Nurse-midwifery*. 1999 Jul 8;44(4):370-4.
 33. Ministry of health and medical education of Islamic Republic of Iran, Maternal health beureu. National guideline for obstetric and childbirth services. Tehran: Ministry of health and medical education; 2011. Persian.
 34. Torkzahrani S. Commentary: childbirth education in iran. *The Journal of perinatal education*. 2008;17(3):51-4.
 35. Ministry of Health and Medical Education of Islamic Republic of Iran. Instruction of Redistribution of Wage for natural birth promotion. Tehran: Ministry of health and medical education; 2014. Persian.
 36. Ministry of Health and Medical Education of the IRI. Health sector evolution; programme for promoting natural birth. Undated [cited in 2016 Jul 16]. Available from: <http://tahavol.behdasht.gov.ir/index.aspx?siteid=426&fkeyid=&siteid=426&pageid=52669>.
 37. Ministry of health and Medical Education of the Islamic Republic of Iran. Regulations of establishing a counseling center and midwifery services. Available from: http://www.behdasht.gov.ir/uploads/1_101_aei_nnameh.pdf. access date in 2015- 3-25.
 38. Anonymous. Supreme Leader meeting with officials of Society of Midwifery on may 05, 2014 [cited in april 2015]. Available from: <http://farsi.khamenei.ir/news-content?id=26319>.
 39. Al-Bannay H, Jarus T, Jongbloed L, Yazigi M, Dean E. Culture as a variable in health research: perspectives and caveats. *Health Promot Int*. 2014 Sep;29(3):549-57. doi: 10.1093/heapro/dat002. Epub 2013 Feb 19.
 40. Maillefer F, de Labrusse C, Cardia-Voneche L, Hohlfeld P, Stoll B. Women and healthcare providers' perceptions of a midwife-led unit in a Swiss university hospital: a qualitative study. *BMC pregnancy and childbirth*. 2015;15:56.
 41. Ministry of health and Medical Education of the Islamic Republic of Iran. Guideline of program the “family physician and referral system” in urban areas the version 02. Tehran: Iran Ministry of Health and Medical Education; 2012. Persian.
 42. Gray J, Taylor J, Newton M. Embedding continuity of care experiences: An innovation in midwifery education. *Midwifery*. 2016;33:40-2.