

Factors Affecting Women's Adjustment to Postpartum Changes: A Narrative Review

Abstract

Background: Postpartum period is associated with stress and pressure, and the woman must adjust herself to these changes. This study aimed to review the factors affecting women's adjustment to postpartum changes in conducted studies. **Materials and Methods:** This review was conducted by searching databases such as ISI Web of Science, Science Direct, Scopus, Cochrane, PubMed and Scientific Information Database (SID), Iranian Medical Articles Database (IranMedex), Iranian Research Institute for Information Science and Technology (IranDoc), and the Iranian Magazine Database (MagIran), as well as searching through Google Scholar (as a Web search engine) in December 2019. Publications from July 2004 to October 2019 were reviewed and limited to Persian and English. The keywords used included "Postpartum", "Women's needs", "Adjustment" and "Coping". After reviewing the articles, out of 60 original articles, 17 articles were selected for final evaluation. **Results:** Factors affecting adjustment to postpartum changes were divided into personal and social factors. Personal factors included previous experiences, coping styles and strategies, personality traits, self-efficacy and awareness, and social factors included family and relatives, healthcare providers, cultural context, and laws and regulations. **Conclusions:** Adjustment to postpartum changes depends on the personal and social factors that can interact with each other. Women's awareness enables them to use positive coping strategies in this critical situation. Educating women's spouse and family members can contribute to increase the women's social support. Additionally, the law support guarantees the implementation of many interventions in promoting the mother's health.

Keywords: Adaptation, psychological, postnatal care, postpartum period, women

Introduction

Although being a mother is a sweet and unique experience, going through the postpartum period is often associated with stress and pressure due to high and fast intra- and interpersonal changes.^[1,2] These changes occur in different physical, psychological, and social aspects.^[2-4] Lazvas and Folkman referred to adjustment as evaluating personal resources and reaching an estimation of "whether the situation is truly stressful or not", and then as entering the phase of coping and action; in other words, they consider adjustment a synonym for situation management.^[5,6] It is believed that individuals always attempt to control the situation using available resources, so that if there are sufficient resources, they will not be anxious and manage the situation, but in the absence of sufficient resources, individuals will lose personal

control and cannot adjust themselves to it. Several environmental and individual factors closely interacting with each other such as gender roles, beliefs orientation, social status, ethnicity, cultural factors, and economic status affect Individuals' adjustment strategies in each situation.^[7-10]

Adaptive postpartum women properly evaluate the situation and attempt to control it using available resources.^[11] Therefore, if there is no adjustment in the stressful situation, the reactions will be inappropriate and will cause negative consequences such as anger, misconduct, disturbed sleep patterns, malfunction, and isolation.^[10] According to the previous studies, the incidence of rage increases in the postpartum period, and these symptoms may persist for even 12 months after delivery. Furthermore, anxiety and depression exist 10.3% of cases in the postpartum period.^[7,12] In these cases, other

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family members are also affected, so that depression and psychological imbalance in the mother in the first weeks and months after delivery can weaken the mother-child relationship and even cause subsequent behavioral problems in the child.^[13] Lack of adjustment also damages the family relationships in other ways. After childbirth, parental duties and responsibilities are increased and consequently, their leisure time is decreased, so that couples become exhausted, and if they are unable to manage the situation, the relationship becomes tense, and even the sexual relations may be disrupted.^[14] It has been demonstrated that postpartum psychological health problems impose considerable economic costs on the health care system. Nevertheless, by identifying the factors affecting women's adjustment to postpartum changes and the necessary to make policies and plans in this area, this period can be one of the sweetest life experiences, and challenges confronting them can be an opportunity to enhance their skills and for personal growth.^[6] Therefore, this present narrative review was conducted to review the factors affecting women's adjustment to postpartum changes in the research conducted in this field.

Materials and Methods

This narrative review is a part of a mixed methods study conducted in December 2019. In this review, titles, abstracts, and keywords of articles published in national journals and Iranian databases, including Scientific Information Database (SID), Iranian Medical Articles Database (IranMedex), Iranian Research Institute for Information Science and Technology (IranDoc), and Iranian Magazine Database (MagIran) were searched using keywords (in Persian), including "postpartum", "adjustment", and "women's needs", and "and" and "or" operators were used to search the combination of these words to gather the required information. English words and their Mesh equivalent, including "postpartum", "women's needs", "adjustment", and "coping" were searched for English databases, such as ISI Web of Science, Science Direct, Scopus, Cochrane, PubMed and Google Scholar (as a web search engine). Inclusion criteria included studies conducted on women's adjustment to postpartum changes or related topics published in English or Persian. In addition, the exclusion criteria included articles presented at conferences and seminars, case reports, letters to the editor, and those with lack of access to the full text of articles. All articles published from July 2004 to October 2019 were searched. This search resulted in achieving 8 published articles in Cochrane Library, Scopus, and PubMed; 7 articles in the ISI Web of Science; 10 articles in Science Direct; and 35 articles in Google Scholar and Iranian databases and 60 articles were identified. The extracted articles were evaluated in two stages and according to inclusion criteria. In the first stage, 24 duplicated articles were eliminated, and in the second stage, 19 articles were eliminated due to

different (irrelevant) topics and goals, as well as the lack of full text [Figure 1]. Finally, 17 articles, including 9 original quantitative articles, 4 original qualitative articles, and 4 review studies were selected for final evaluation [Table 1]. It is noteworthy that two independent referees (reproductive health specialists) searched the resources and evaluated all studies. In this regard, any disagreements between the referees were resolved through discussion considering the objectives of the study, and the opinion of a third party was used if necessary. The information obtained from the articles, including title, authors' name, study duration, and study details such as purpose, study design, participants, ethical considerations, results, and limitations were evaluated. Finally, the selected articles were reviewed to determine the factors affecting women's adjustment to postpartum changes.

Ethical considerations

This study was approved by the Ethical Committee of Isfahan University of Medical Sciences with the following Ethics Code (IR.MUI.RESEARCH.REC.1397.476). In the present review study, the gathered information from the research was only used regarding the scientific goals and commitment to protect the intellectual property in reporting and publishing the results.

Results

Study selection outcomes

Based on the review, the factors affecting adjustment to postpartum changes can be divided into two groups of (1) personal factors and (2) social factors [Table 2]. These factors are described below.

Personal factors: Studies referred to personal factors affecting adjustment to postpartum changes as previous experiences, coping styles and strategies, personality traits, self-efficacy and awareness.

Previous experiences: After delivery, when a woman encounters new challenges, she decides and solves the problem by her experiences.^[6] Studies indicated different results regarding the experiences. For instance, inconsistent results were achieved on having a history of previous childbirth and stressful events in life and adjustments. Regarding studies, there are two theories in case of having a history of child's birth: the first one is that, owing to the new condition, a woman who experiences her first childbirth and has no other child encounters higher stress and problems.^[5,15] The second one is that, in cases where the woman has other children, she becomes more stressed and tense due to many responsibilities. Based on most studies, there has been no significant difference in anxiety and depression symptoms between the two groups.^[5] Stressful events in the past have been cited as factors affecting the postpartum depression,^[16] but a study showed that stressful experiences were accompanied by the postpartum

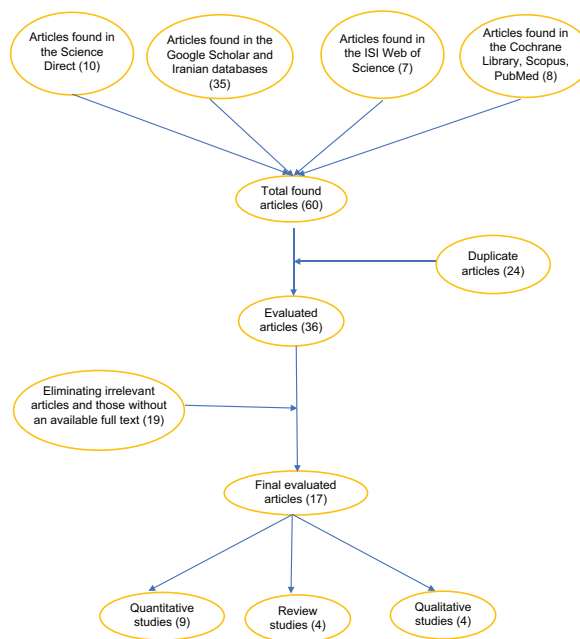


Figure 1: The flowchart for the selection process of the articles

depression.^[17] In this regard, these contradictions in the studies have been attributed to different coping styles, so that an individual using an effective coping style can better manage new critical situations by learning and increasing awareness in her experiences, but an individual using an ineffective coping style becomes more anxious, loses control, and is maladjusted in stressful situations due to recalling unpleasant experiences.^[18]

Coping styles and strategies: The researchers introduced two types of problem-oriented and emotion-oriented coping styles. Problem-oriented coping style consists of problem definition and strategy development for coping, and emotion-oriented coping style is focused on recognizing emotions to avoid stress. The problem-oriented coping style has been cited as a successful strategy in various studies.^[2] In this coping style, one attempts to cope and resolve the tensions and challenges using different strategies. For example, in these studies, strategies, such as seeking support when responsibilities are increased, labor division, communication with God as support in hardships, acceptance of the reality of being a mother and its responsibility, communication with other mothers for self-nurturing, and creation of a positive self-perspective, have been introduced as the most effective strategies for postpartum adjustment.^[19] Based on the studies, coping styles and strategies are closely associated with an individual's personality traits, so that in a stressful situation, the behavior is more affected by the individual's perception of the amount of stress, and the individual's perception of the potential stressful is even related to the personality traits. Furthermore, in addition to individuals' perception of

a situation, their attitudes are different according to their personality.^[18]

Personality traits: Based on the studies, one of the characteristics of people suffering from neuroticism is vulnerability to stress. Since these people do not give themselves the opportunity to consider and review the problem due to incorrect evaluation, they use an emotion-oriented coping style.^[20] The literature review indicated that personality traits significantly affected the postpartum adjustment. In a study, introversion and neuroticism were introduced as the predictors of postpartum depression.^[21] In addition, the study conducted by Dudek *et al.* demonstrated a significant relationship between postpartum depression and neuroticism.^[16] Similarly, Martin-Santos *et al.* showed that individuals with psychoticism personality traits tended to experience negative emotions such as anxiety, guilt, and lack of security, and were prone to acceptance of psychological tenseness. In other words, psychoticism is an independent risk factor for postpartum depression.^[22] Given the previous studies, postpartum depression and sense of guilt are more prevalent in perfectionists,^[16] while there is an inverse relationship between extraversion, acceptance of new experiences, agreeability, responsibility, and the postpartum depression.^[23]

Self-efficacy: Based on the studies, self-efficacy is another factor significantly affecting an individual's perception of stressful situations. Generally, postpartum self-efficacy depends on the personal beliefs about their competence as a parent and their ability in dealing with and nurturing

Table 1: Studies in the field of women's adjustment to postpartum changes from 2004 to 2019

Authors and publication year	Type of the study	Sample size	Place of the study	Tools	Results
Fahey <i>et al.</i> (2013)	Review	Not mentioned in the article	America	Searching databases	Postpartum health can be gained through reinforcing four key skills, including the ability to mobilize social support, self-efficacy, positive coping strategies, and realistic expectations.
Ospina Romero <i>et al.</i> (2011)	Review	Not mentioned in the article	Colombia	Searching databases	Nurses should predict the specific needs of this period such as health services and training, to effectively handle the individual and the family.
Entsieh <i>et al.</i> (2015)	A systematic review and meta-synthesis of qualitative literature	12 articles	Sweden	Searching databases	Parents need to obtain primary and realistic information about parenting skills and to have the opportunity to seek help from health professionals in the early postpartum period. They need to be aware of potential changes in the marital relationship and strategies to cope with it.
Guardino <i>et al.</i> (2014)	Systematic review	45 cross-sectional & 16060 longitudinal studies	America	Searching databases	Poor coping styles and skills are associated with postpartum depression, and a low rate of baby growth
Whisman <i>et al.</i> (2011)	Correlation	113 pregnant married or cohabiting women who were at risk for perinatal depression	America	Questionnaire	Relationship adjustment between spouses was inversely related to depressive and anxiety symptoms in women during pregnancy and the postpartum period.
De Caroli (2013)	Longitudinal study	40 primiparous mothers	Italy	Questionnaire	The postpartum level of perceived support was lower than the pre-partum level, and perceived postpartum stress level was higher than the pre-partum level. The performance of parents in maternal and paternal duties in the postpartum period had significant advances relative to the pre-partum period.
Figueiredo & Conde (2011)	Longitudinal study	520 first or second-time parents	Portugal	Questionnaire	Symptoms of anxiety and depression usually begin early in pregnancy and end up 3 months after delivery. Men had less anxiety and depression symptoms than women, but the pattern of symptoms was similar to that in women.
Ramchandani <i>et al.</i> (2011)	Correlation	Fathers with ($n=54$) and without ($n=99$) diagnosed depressive disorder	England	Questionnaire	Findings emphasize the importance of considering the potential for men and women to experience depression in the postnatal period. Paternal depressive symptoms have the potential to influence partners and marital relationships.
Hung <i>et al.</i> (2011)	Cross-sectional	859 mothers	Taiwan	Taiwan	In women with minor psychological complications, having one or two children, early academic education level, feeding baby with formula, preferring male gender, and low level of social support was the important predictors of postpartum stress.
Piontkowski (2011)	Correlation	152 first-time mothers	America	Online survey	Women, who had higher levels of gratefulness, gratitude, and coping with emotional attachment, reported better postpartum compliance, higher postpartum life satisfaction, and lower postpartum distress. Maternal and neonatal health was the predictor of good outcomes of adjustment to postpartum for mothers.
Escribà-Agüir & Artazcoz (2011)	Cohort	769 women in their third trimester of pregnancy and their partners	Spain	Questionnaire	Low marital satisfaction, partner depression and depression during pregnancy lead to an increase in the likelihood of depression 12 months after delivery in mothers and fathers. Negative life events increased the risk of depression among mothers.

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Authors and publication year	Type of the study	Sample size	Place of the study	Tools	Results
Verkerk <i>et al.</i> (2005)	Cohort	277 pregnant women 32 weeks after gestation	Netherlands	Questionnaire	Nervousness was associated with an increase in the risk of depression in the postpartum period. The combination of neuroticism and high introversion was an independent predictor of clinical depression in the first year after delivery.
Dudek <i>et al.</i> (2014)	Cross-sectional	344 women 6-12 weeks after postpartum	Poland	Questionnaire	Women with mood disorders exhibited a higher index of neuroticism. Results showed that the presence of postpartum depression symptoms were associated with scores greater than bipolarism and nervousness. Nervousness may be a symptom of postpartum depression and bipolarism.
Shaikh & Carol (2010)	Qualitative	12 women who had experienced depression within one year after the birth of a live infant (no more than five years prior to the study)	America	Interview	The coping strategies extracted for postpartum depression include relationship with God, acceptance of maternal reality, seeking support (e.g., sharing maternal responsibilities, access to services), nurturing oneself (e.g., participating in occupational and recreational activities, creating positive outlook) and supportive tasks (e.g., postpartum depression awareness, providing support to other women), and other strategies like going to nature.
Woolhouse <i>et al.</i> (2012)	Qualitative	18 women whose first child was between 2.5 and 3.5 years old	Australia	Interview	Pregnancy, delivery and raising the child can dramatically change women's sexual experiences and intimacy. Women who experience a significant decrease in their sexual desire may be exposed to the feeling of guilt and frustration, which is due to their high expectations from themselves; in other words, they should be able to handle all their responsibilities after delivery.
Weiss <i>et al.</i> (2009)	Mixed methods	233 culturally diverse women	America	Interview & questionnaire	Health training was the most common postpartum intervention strategy.
Wilkins <i>et al.</i> (2006)	Qualitative	8 primiparous women, who given birth normally at its term	England	Interview	With peer practice, support, and shared knowledge, maternal skill is formed, during which mothers' primary concern was to build self-confidence and have the ability to take good care of their child

Table 2: Affecting factors on women's adjustment to postpartum changes

Group	Subgroup
Personal factors	Previous experiences Coping styles and strategies Personality traits Self- efficacy Awareness
Social factors	Family and relatives Cultural context Healthcare providers Laws and regulations

a child. According to the results of the studies, sense of self-efficacy may be impaired due to the birth of a child and many subsequent changes in the woman's life.

Some examples are workload at home, loss of income, dissatisfaction with physical appearance, concerns about different roles, and changes in sexual desire.^[4,6] In these conditions, women with low self-efficacy become agitated and lose control and consequently, their adjustment is impaired. In various studies, self-efficacy and self-control have been cited as important factors in reducing postpartum stress and as facilitators for adjustment.^[4,6,24,25]

Awareness: According to Entsieh *et al.*, awareness is one of the basic needs for adjustment to postpartum period changes. Positive psychological readiness can reduce the depression and anger by changing self-efficacy and better control feeling. Receiving postpartum education about how to get specialized facilities of support, possible changes in marital relationships and coping them, as well as parental self-confidence is important.^[26] In a study in Denmark,

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84% of participants tended to learn more about skills of communication before and after parturition.^[27] Moreover, in another study, parents declared that they needed someone who could provide them with information around the clock.^[28]

Social factors

Based on the studies, family and relatives, healthcare providers, cultural context, and laws and regulations are among social factors influencing adjustment to postpartum changes.

Family and relatives: Based on the studies, family and relatives play a crucial role in supporting women in postpartum. In this situation, all family members, in addition to the woman, adjust themselves to new conditions, their behavior patterns and roles change, and the family acquires a new kind of communication.^[6,11] Marital satisfaction and interactions (about decision-making, division of tasks, and sexual relations) appear to be affected.^[9] Póo *et al.* in their study identified family interactions, especially relationship with spouse, as the most important risk factors for postpartum depression.^[29] In a descriptive study, loneliness was one of the most common problem in the first 2-8 weeks of postpartum.^[6] In addition, in the study by Weisman *et al.*, a weak marital relationship had an important effect on the onset and persistence of postpartum depression.^[30] In one study by Ramchandani *et al.*, father depression was identified as a factor of maladjustment to postpartum.^[31] Furthermore, in a study, family had a positive effect on creating postpartum self-awareness, doing labors and returning to work in women.^[32]

Healthcare providers: Studies indicated that healthcare providers play a key role in adjustment to the postpartum period.^[6] Healthcare providers can help the mother in many ways, including education about self-care, baby care and reduction stress, and can answer the questions and concerns of the mother.^[6,9]

Cultural context: According to studies, cultural context plays an important role in women's adjustment to the postpartum period, as many of needed resources to adjust and how these resources are used depend on the culture. In this context, when the husband is heavily involved in gender roles and is unwilling to assist the woman in postpartum, the woman loses one of her important sources of support. Acceptance of the hardness of maternal roles is an influential factor in maternal adjustment.^[19] Women's adjustment to postpartum changes in societies where the mother's role is influential and childbearing is their most important goal and concern occurs better than in societies where motherhood is not the primary goal of women. Furthermore, many cultural beliefs in the postpartum period can jeopardize the woman's health by preventing education inconsistent with cultural norms.^[31]

Laws and regulations: Based on the results of studies,

care during the parturition period is recognized worldwide, but many needs of women remain unexplored in the postpartum period.^[6] Women in the postpartum period have various needs, and laws should be legislated considering the needs. Receiving support from a man is possible if he can be physically present at home and therefore the "paternity leave" for men must be one of the national laws. Additionally, the existence of reliable centers like nurseries centers can help women who are concerned about their social and occupational tasks.^[33] In many studies, women have pointed to loss of income, increase in responsibility, different tasks, and lack of social support as problems in the postpartum period. Therefore, sufficient legal support of puerperal women can reduce the concerns and challenges of her life, so that she has better adjustment to changes.^[31]

Discussion

This narrative review was conducted to review the factors affecting women's adjustment to postpartum changes and indicated that personal and social factors influenced women's adjustment to postpartum changes. Based on the results of the present narrative review, previous experiences, coping styles and strategies, personality traits, self- efficacy, and awareness are among personal factors and social factors, including family and relatives, cultural context, healthcare providers, and laws and regulations. Based on the results of the present narrative review, personal and social factors affecting women's adjustment to postpartum changes are associated with each other like rings of a chain. Therefore, when these factors adequately and appropriately help the women in the postpartum period, adjustment occurs.^[6,8,19,20,25,26] According to the results of the present narrative review, sufficient awareness in various fields can correct women's understanding of their situation, increase their self-confidence and self-efficacy and enable them to use positive and performance coping styles and strategies in stressful situations.^[6,26] Furthermore, women's awareness about their personality traits reduces their vulnerability to postpartum stress and they can replace negative emotions with positive emotions; this can be effective in their adjustment to postpartum changes.^[6,20] Moreover, the spouse and family members may not be well aware of physical and psychological changes in postpartum, and may not know how to deal with women during this period. When the target groups are women's spouse and family members, education can be useful to increase the women's social support. In the study by Entsieh and Hallström, men declared that childbirth-training classes focused only on how to deal with women before childbirth, and they should be educated about women's need and how to communicate with them in the postpartum period.^[26]

Based on the results of the present narrative review, women will be maladjusted, when they cannot control the situation due to the lack of external support factors

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or their lack of proper management. Therefore, healthcare providers can play a significant role in such a situation. In this regard, education is a way that health system can use it as a tool to help women's adjustment to the postpartum period.^[2,6] Hence, by providing education, the sensitivity of this course can be shown to those interacting with the woman. According to the results of the present narrative review, cultural context plays a key role in thoughts, relationships, and performance of many families, and therefore, interventions should be based on the community culture.^[6,9] In cases where culture is inconsistent with the woman's health, interventions must change and modify it. Based on the results of the present narrative review, the law support guarantees the implementation of many strategies. In many cases, lawmakers have not recognized the sensitivity of the woman's adjustment to postpartum changes.^[33] Hence, being informed with providing documentation, and the results of research conducted in this area can be useful. Limitations of the present study include lack of access to data in some databases as well as the full text of the articles.

Conclusion

Based on this narrative review, adjustment to the postpartum period depends on the personal and social factors that can interact with each other. Women's awareness in various fields can correct their understanding of situation, increase their self-efficacy and enable them to use positive coping strategies in this critical period. Considering the fact that cultural context plays a key role in relationships and performance of families, interventions must be based on the community culture. In addition, educating women's spouse and family members can be useful to increase their social support. In this regard, the law support guarantees the implementation of many interventions in promoting the mother's health.

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Conflicts of interest

Nothing to declare.

References

- Guardino CM, Dunkel Schetter C. Coping during pregnancy: A systematic review and recommendations. *Health Psychol Rev* 2014;8:70-94.
- Piontkowski S. First baby, first year: Gratitude and emotional approach coping as predictors of adjustment and life satisfaction during the transition to motherhood. Thesis for Master of Arts, Faculty of the Graduate School of the University of Maryland, 2011.
- Weiss M, Fawcett J, Aber C. Adaptation, postpartum concerns, and learning needs in the first two weeks after caesarean birth. *J Clin Nurs* 2009;18:2938-48.
- Fahey JO, Shenassa E. Understanding and meeting the needs of women in the postpartum period: The perinatal maternal health promotion model. *J Midwifery Womens Health* 2013;58:613-21.
- Hung C, Lin C, Stocker J, Yu C. Predictors of postpartum stress. *J Clin Nurs* 2011;20:666-74.
- Ospina Romero AM, Muñoz de Rodríguez L, Ruiz de Cárdenas CH. Coping and adaptation process during puerperium. *Colomb Med* 2012;43:167-74.
- Stephens C. Narrative analysis in health psychology research: Personal, dialogical and social stories of health. *Health Psychol Rev* 2011;5:62-78.
- Figueiredo B, Conde A. Anxiety and depression symptoms in women and men from early pregnancy to 3-months postpartum: Parity differences and effects. *J Affect Disord* 2011;132:146-57.
- Woolhouse H, McDonald E, Brown S. Women's experiences of sex and intimacy after childbirth: Making the adjustment to motherhood. *J Psychosom Obstet Gynecol* 2012;33:185-90.
- Sarson IG, Sarson BR. *Abnormal Psychology: The Problem of Maladaptive Behavior*. India: Prentice-Hall; 2002.
- Escribà-Agüir V, Artazcoz L. Gender differences in postpartum depression: A longitudinal cohort study. *J Epidemiol Community Heal* 2011;65:320-6.
- Hung C. Revalidation of the postpartum stress scale. *J Clin Nurs* 2006;15:718-25.
- Brummelte S, Galea LA. Postpartum depression: Etiology, treatment and consequences for maternal care. *Horm Behav* 2016;77:153-66.
- McBride HL, Kwee JL. Sex after baby: Women's sexual function in the postpartum period. *Curr Sex Heal Reports* 2017;9:142-9.
- Noorozi M, Bashardoost N, Farmahini Farahani M. Postpartum physico sexual problems and related factors. *J Shahrekord Univ Med Sci* 2005;7. [In Persian]
- Dudek D, Jaeschke R, Siwek M, Mączka G, Topór-Mądry R, Rybakowski J. Postpartum depression: Identifying associations with bipolarity and personality traits. Preliminary results from a cross-sectional study in Poland. *Psychiatry Res* 2014;215:69-74.
- De Caroli ME, Sagone E. The experience of pre-and post-partum in relation to support, stress, and parenthood representation. *Procedia-Social Behav Sci* 2014;116:697-702.
- Faisal-Cury A, Savoia MG, Menezes PR. Coping style and depressive symptomatology during pregnancy in a private setting sample. *Span J Psychol* 2012;15:295-305.
- Shaikh A, Kauppi C. Coping strategies as a manifestation of resilience in the face of postpartum depression: Experiences of women in Northern Ontario. *Int J Interdiscipl Soc Sci* 2010;5:261-73.
- Pocnet C, Dupuis M, Congard A, Jopp D. Personality and its links to quality of life: Mediating effects of emotion regulation and self-efficacy beliefs. *Motiv Emot* 2017;41:196-208.
- Verkerk GJM, Denollet J, Van Heck GL, Van Son MJM, Pop VJM. Personality factors as determinants of depression in postpartum women: A prospective 1-year follow-up study. *Psychosom Med* 2005;67:632-7.
- Martin-Santos R, Gelabert E, Subirà S, Gutierrez-Zotes A, Langorh K, Jover M, *et al.* Is neuroticism a risk factor for postpartum depression? *Psychol Med* 2012;42:1559-65.
- Podolska MZ, Bidzan M, Majkovicz M, Podolski J, Sipak-Szmigiel O, Ronin-Walknowska E. Personality traits

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- assessed by the NEO Five-Factor Inventory (NEO-FFI) as part of the perinatal depression screening program. *Med Sci Monit* 2010;16:PH 77-81.
24. Schwarzer R, Boehmer S, Luszczynska A, Mohamed NE, Knoll N. Dispositional self-efficacy as a personal resource factor in coping after surgery. *Pers Individ Dif* 2005;39:807-18.
 25. Schwartz L, Toohill J, Creedy DK, Baird K, Gamble J, Fenwick J. Factors associated with childbirth self-efficacy in Australian childbearing women. *BMC Pregnancy Childbirth* 2015;15:29.
 26. Entsieh AA, Hallström IK. First-time parents' prenatal needs for early parenthood preparation-A systematic review and meta-synthesis of qualitative literature. *Midwifery* 2016;39:1-11.
 27. Axelsen SF, Brixval CS, Due P, Koushede V. Integrating couple relationship education in antenatal education-A study of perceived relevance among expectant Danish parents. *Sex Reprod Healthc* 2014;5:174-5.
 28. Wilkins C. A qualitative study exploring the support needs of first-time mothers on their journey towards intuitive parenting. *Midwifery* 2006;22:169-80.
 29. Póo AM, Espejo C, Godoy C, Hernández T, Pérez C. Prevalence and risk factors associated with postpartum depression in puerperal women consulting in primary care. *Rev Med Chil* 2008;136:44-52.
 30. Whisman MA, Davila J, Goodman SH. Relationship adjustment, depression, and anxiety during pregnancy and the postpartum period. *J Fam Psychol* 2011;25:375.
 31. Ramchandani PG, Psychogiou L, Vlachos H, Iles J, Sethna V, Netsi E, *et al.* Paternal depression: An examination of its links with father, child and family functioning in the postnatal period. *Depress Anxiety* 2011;28:471-7.
 32. Phahuwatanakorn W. The relationships between social support, maternal employment, postpartum anxiety, and maternal role competencies in Thai primiparous mothers. Thesis of PhD of Nursing Science, School of Nursing, The Catholic University of America; 2003.
 33. Carlson V, Chilton MJ, Corso LC, Beitsch LM. Defining the functions of public health governance. *Am J Public Health* 2015;105:S159-66.