
Parenting Experiences of Mothers Who Are Blind in Iran: A Hermeneutic Phenomenological Study

Zahra Behboodi Moghadam, Shahrzad Ghiyasvandian, Samira Shahbazzadegan, and Mahmood Shamshiri

Structured abstract: *Introduction:* Mothers, who often serve as primary caregivers for their offspring, play a crucial role in the development of children. Understanding the parenting experiences of mothers who are blind can be valuable and beneficial for professional educators and health care workers who wish to provide holistic and appropriate services to both mothers who are blind and their children. This study aimed to explore the experience of mother-child integration by mothers who are blind living in Iran. *Methods:* A hermeneutic phenomenology approach was adopted to conduct the study. Congruent with this approach, Van Manen's (1990) method consisted of six interplay activities that helped the researchers in the process of the study. Semistructured in-depth interviews were performed to produce qualitative data with nine mothers who are blind. The thematic analysis introduced by Van Manen was used to isolate and extract the meaning units, subthemes, and the main theme hidden in the lived stories of the participants. *Results:* "Close nurturers" was the overarching theme extracted from the experience of mothers who are blind, which emerged from six themes: monitoring by alternative senses, monitoring by careful calls and staying vigilant, loving by heart and imagining in mind, discovering the child's intentions, parenting anxiety, and deficits in communication. *Discussion:* Blindness changes the mothering behaviors of women who are blind to the extent that they often adopt a close-mothering approach in caring for their children. This approach helps them to cope with their limitations and thereby decrease their level of child-related anxiety. Health professionals should consider the concept of close nurturers to better understand the behaviors of mothers who are blind. *Implications for practitioners:* Understanding the lived experiences of mothers with blindness can generate valuable knowledge that can be used to provide appropriate health care and other support services for these women and their children.

In many cultures, the mother is the primary person who interacts with and cares for her child, especially in the early years of growth and development (Freiburger, 2010).

Mother-child interaction is fundamental for the child's development and also for the gratification of the mothering role for mothers (Rogers-Cook, 2011). Through daily inter-

actions with mothers, children start to communicate and learn many skills. Interaction involves a process in which a person does or says something to convey a meaning and receives responses. Successful interaction depends on the clear expression of intention in a way that the other person can understand it (Chiesa, Galati, & Schmidt, 2015).

The sense of vision is the primary way in which human beings perceive the world, and in many societies it is even considered as the best gift of God to human beings (Shamshiri, 2014). Sighted mothers primarily rely on visual signs such as facial expressions to perceive their children's needs and mood changes and to respond to them. Mothers who are blind, on the other hand, cannot communicate easily with their children compared to sighted mothers (Gutman, 2005). Seemingly, mothers who are blind are not completely aware of the visual cues; therefore, they may use other methods to discover the requests or needs of their children (Shackelford, 2004).

According to the latest estimates of the World Health Organization (WHO, 2014), 285 million people are visually impaired worldwide. Among them, 39 million are blind and 246 million have low vision (Pascolini & Mariotti, 2012). A number of provincial studies have reported the prevalence of visual impairment and blindness in Iran, but no national data are available. Based on a study in the Yazd province of Iran in 2015, the standardized prevalence of blindness and low vision were 0.7% and 4.4%, respectively. It is notable that these values were higher for females (Katibeh, Pakravan, Yaseri, Pakbin, & Soleimanizad, 2015). Another study, in the city of Shahrood,

showed that the prevalence of visual impairment ranged from 1.8% in people younger than 20 years to 28% in subjects aged 60 years and over (Hashemi, Khabakhoob, Emamian, Shariati, & Fotouhi, 2012). Given this considerable prevalence of vision loss, it is likely that there are women who are severely visually impaired who are raising children in Iran.

Motherhood and mother-child interaction can be compromised when the mother is visually impaired (Shackelford, 2004). For a mother who is severely visually impaired, communicating with the child is crucial to discovering the child's desires, intentions, and needs. However, a mother who is blind may not use typical ways to interact with and care for her child (Chiesa et al., 2015). Shackelford (2004) reported that mothers who are blind successfully interact with their child and used multiple strategies to read their child's cues and to respond sensitively to their child's signals.

Still, a gap exists in the research and literature concerning blind parents raising sighted children. Findings of such research can help organizations to gain new insight into the unique experiences of blind mothers and provide services in a format that supports parenting efficacy (Shackelford, 2004).

A review of the literature showed a lack of research about the mothering experiences of visually impaired women who provide care for their children in the Iranian society. However, there are some studies about life for women who are blind. Shamshiri (2014) showed that women who are blind are faced with challenges within Iranian society. His study discerned some important themes, including living with shame and personal stigma, social stigma,

Table 1
Van Manen's method and its applications in the study.

Six methodical activities proposed by Van Manen	The researchers' activities in the current study
Turning to the nature of lived experience	Thinking and sensitizing to visually impaired mothers, expressing the phenomenological questions such as: How is the mothering experienced by blind mothers?
Investigating experience as we live it	Prolonged engagement with the blind mothers, conducting in-depth interviews
Reflecting on essential themes	Listening the interviews' audios, reading the transcripts, immersing in data, conducting thematic analysis
Hermeneutic phenomenological writing	Writing the transcripts, writing about themes, writing to create a phenomenological text
Maintaining a strong and oriented nursing relation to the phenomenon	Discussing the themes in relation to mothering science
Balancing the research context by considering parts and whole	Moving between transcripts and themes, relating the findings to the literature

underestimation, inequity, and marginalization, that have been experienced by women who are blind. These experiences take place within a cultural context and can affect adjustment and the social and developmental roles of women, such as marriage and mothering (Shamshiri, 2014).

Certainly, understanding the lived experiences of visually impaired mothers can generate valuable knowledge that would be useful in providing appropriate health care and educational services for women who are blind and their children. Regarding cultural and family relationships and support, and differences among Iranian society and other communities, this study was planned to understand the mother-child interaction experiences of mothers who are blind in caring for their children in Iran.

Design and methods

A hermeneutic phenomenology approach was used to conduct this study. Congruent with this approach, the method introduced by Van Manen (1990) was adopted. This method suggests six circular activities

that researchers should consider from beginning the study until reporting its findings (Van Manen, 1990). The method and its application in this study have been shown in Table 1.

PARTICIPANTS AND SETTING

The study setting was the urban and rural area in the city of Ardabil. Ardabil is the center of Ardabil province in the north-west of Iran, with a population of about 1.5 million. To find participants, the addresses and phone numbers of mothers with visual impairments who had the potential to participate in the study were obtained from the primary health care support office of the Social Welfare Organization in Ardabil. The participants who met the study's criteria (being totally blind with no functional vision, being a first-time mother, being 18 years of age or older, and having no additional disabilities) were invited to participate in the study. Upon the participants' verbal agreement, the researcher asked them to attend an individual preparatory session. During the

Table 2
Sociodemographic characteristics of the participants.

Participant	Mother's age	Child's age	Child's gender	Mother's education	Occupation
Sara	31 years	12 months	Male	Primary school	Housewife
Maliheh	43 years	8 years	Female	Diploma	Phone operator
Bahar	39 years	5 years	Female	Illiterate	Housewife
Mansooreh	38 years	4 years	Female	Illiterate	Housewife
Tahereh	48 years	7 years	Female	Illiterate	Housewife
Leyli	28 years	18 months	Female	High school	Housewife
Shabnam	35 years	9 months	Male	Bachelor of science	Charity facilitator
Yas	30 years	2 years	Male	High school	Phone operator
Anita	28 years	4 months	Female	Diploma	Phone operator

preparatory sessions, the interviewer tried to communicate and develop rapport with the participants in order to win their trust and to gain their consent for recording the interviews, and to set up appointments for formal interviews. Finally, nine mothers who were totally blind were interviewed. The demographic characteristics of the participants have been presented in Table 2.

DATA COLLECTION

Data were collected over six months, from January to June 2015. Semistructured and in-depth interviews were conducted to produce qualitative data. After the aforementioned preparatory session with each of the participants, face-to-face and dialogical interviews were carried out to obtain data about their mothering experiences. The interviews were reciprocal and dialogical: open-ended and close-ended questions were used to capture the lived stories of the participants, especially in relation to caring for their children. The starting question to initiate the interviews was: Would you please tell me about your child and how you take care of her or him? All of the interviews were audio-recorded and then transcribed verbatim immediately after completion.

DATA ANALYSIS

Data analysis was a constant and ongoing activity during the study, beginning immediately after the first interview. In particular, this analysis involved reflecting on essential themes, which is the main process used in the method of Van Manen (1990), to uncover the themes of interest hidden in the phenomenon. This method consists of three techniques, which can be described as holistic, selective, and detailed (Van Manen, 1990). A *theme* is an abstract term or phrase that symbolizes some of or the whole part of an experience. In fact, it unifies the qualitative raw data into a meaningful whole (Polit & Beck, 2010). Audio-recorded files of the interviews were transcribed into text files in Microsoft Word verbatim and then imported into the text analysis software MAXQDA. Selective and holistic strategies proposed by Van Manen were used to isolate the themes. Through these strategies, the essential meanings of the words, sentences, and the whole of interview texts were condensed to thematic statements. This process continued until the main theme emerged. Enough time was spent to establish a relationship or relationships between the primary

meaning units, subthemes, and the main theme to create a comprehensive conceptual image of the phenomenon.

TRUSTWORTHINESS

Criteria introduced by Lincoln and Guba (1985) were used to improve the quality of the study. Congruent with those criteria, activities were undertaken during the study for this purpose. Prolonged engagement with the participants was the main technique to improve the credibility of data. Researchers tried to recruit participants from all walks of life to meet the rule of maximum variation. Member checking was a key process in assuring the quality of the findings. For this purpose, all the themes extracted from the data were presented to three key participants, and almost all of the themes were confirmed by them. Above all, the main or first researcher tried to obtain a deep knowledge about the research approach to view the experience phenomenologically, albeit other authors had previous sufficient experience in doing phenomenological studies. Field journaling, careful recording of the interviews by two voice recorders, and reflexivity during data collection and analysis were other techniques that were used to capture the phenomenon as lived. The study process was evaluated by supervisors in the critical steps of the study, especially when the interviews were conducted and as themes evolved (Polit & Beck, 2010).

ETHICAL CONSIDERATIONS

Ethical approval was obtained from the ethics committee of Tehran University of Medical Sciences. Participants were fully informed about the research and any ethical consequences of the study. All of them were assured about the confidenti-

ality of their personal data. Participation was voluntary, and participants were informed that they had the right to refuse to cooperate in the study at any stage. Anonymity was achieved by assigning a pseudonym for each participant in the publication and in reporting the data. Above all, an informed written consent in braille was signed by literate participants before data collection. Verbal consent was taken from illiterate participants.

Results

In-depth analysis of the participants' lived experiences about their interaction with their sighted children revealed six themes: monitoring by alternative senses, monitoring by careful calls and staying vigilant, loving by heart and imagining in mind, discovering the child's intentions, parenting anxiety, and deficits in communication. These themes were condensed into an overarching theme called "close nurturers." The main theme and its constitutive themes have been detailed in the following sections.

MONITORING BY ALTERNATIVE SENSES

The theme of monitoring by alternative senses is representative of an important aspect of the experiences of mothers who are blind, which describes their use of other senses in the absence of vision. Participants declared that they often use alternative senses to provide care for their children. The basic and primary alternatives were touch and palpation. For example, Shabnam, the mother of a 9-month-old boy, said: "I try to secure my child on my back or I cuddle him This ensures me he is protected from danger." Another participant, Leyli, the mother of an 18-month-old girl, said, "All

the time I hug my child or I lie close to her to make sure that my child is in her cradle.” Another important method used by mothers who are blind to locate their children was their ability to keep themselves ready to react to voices that might convey hints about the location and presence of their child. One of the participants, Bahar, the mother of a 5-year-old girl, said in the interview: “You are seeing with your eyes, but I see my daughter with my ears!” Sara, the mother of a 12-month-old boy, said: “When I hear his swallowing or eating sounds, I ensure that he is eating his food.”

Narratives of mothers who are blind about living with their children showed some of the creative coping strategies in providing appropriate care for their children. Leyli said: “I feed my child with my hands, not with a spoon With my hands, I fully ensure that she has eaten her food.” Also, children of mothers who are blind learn how to react in confronting the limitations of their mothers. Mansooreh said, “My child is 4 years old; she knows how to convey her needs to me. For example, when she needs something she tries to put it on my hand.” Leyli said in the interview, “When I offer food with a spoon, my child tries to move her mouth toward the spoon.”

MONITORING BY CAREFUL CALLS AND STAYING VIGILANT

Inquiry into the mother-child interaction experiences of mothers who are blind showed that one of the main methods used by them to monitor their children was through careful calls and staying vigilant. Analysis of the data showed that this alternative technique can decrease the level of anxiety of mothers who are blind

and assures them about the well-being of their children. In particular, this strategy is effective when the child starts to communicate through speaking. For example, Yas said, “My child is two years old. When he is some distance away, I call him until I hear his sound.” Also, Tahereh, the mother of a 7-year-old girl, said, “I am often ready to reply to my child because any accidents may happen to her so I should find her soon.” Similarly, Mansooreh said, “Almost always, my ears are ready to receive any sound showing any request or issue from my child to the point that I react to cries or voices of other children that this [staying careful and vigilant] is bothering for me.”

LOVING BY HEART AND IMAGINING IN MIND

Exploring the life stories of mothers who are blind about their attachment with their children revealed that another manner of connectedness was loving with their hearts and imagining their children’s visages in their minds. They mentioned a subjective connection with their children, which is related to heart and mind. Tahereh said, “I see my child with my mind.” Leyli said, “My mind is not blind; I can see my child with my mind.” Shabnam said, “I can imagine and see him. . . . In my mind I can think of my child, I even plan for his future.” Yas said, “You are seeing with your eyes but I see my child with my heart and mind Now he is in my mind I can see him and love him.” Sara said, “I made a schematic picture of my child in my mind and I can always recall and imagine it.”

DISCOVERING THE CHILD'S INTENTIONS

The participants reported another communication technique. It is a type of intention-reading that can help mothers who are blind to discover the needs of their children. It often works for mothers who are caring for young children or infants. With this form of communication, mothers who are blind can interpret or detect their children's signals. Understanding the intentions and requests by trial and error was the main method of discovering these intentions, because the mothers could not read the visual cues of their child. Yas said, "When my child is crying, I show him many things, particularly the milk bottle and the toys, that may satisfy him to be calm." Shabnam said, "My child cannot speak to express his needs, thus I should identify his needs, albeit sometimes it is overwhelming."

PARENTING ANXIETY

Exploring the words and stories of mothers who are blind showed that they were experiencing child-related anxiety. According to the participants, the primary source of anxiety for mothers who are blind originated from their visual impairment. For example, Anita, the mother of a 4-month-infant, said, "When I was informed of being pregnant, my stress started because I was thinking that I would not be able to provide a safe care for my baby." Leyli said, "After my baby was born, I was worried about her safety." In addition, some of the participants had the anxiety of separation from their children. For example, Sara said, "Right now I am uncomfortable, because if I put my child on the ground and she moves any distance away from me, I worry about not being able to find her." Bahar said, "I am

often uneasy about my child, particularly when she is playing at a distance out of my reach. . . because if something happens to her, I cannot find her easily to help." Maliheh, whose daughter was 8 years old, said, "I am worrying, because my girl grows and becomes juvenile and may watch improper channels on TV; therefore, I can't control her."

DEFICITS IN COMMUNICATION

This theme was current and fluid in all of the above themes. Although mothers who are blind use alternative ways to communicate with their children, their lived experiences revealed deficits in their interactions with their children, which could disturb the mothering experience. Communication deficit as a limitation was true in their daily lives. According to the participants' statements, mother-child interactions, both verbal and nonverbal, can be affected by visual impairment. For example, they cannot effectively use vision to contact or read facial expressions and body gestures in the caring and training of their children. Sara said, "When my baby eats his food, I cannot completely recognize that he is full or not. Sometimes other people tell me that my baby is asking for something with his hands while I cannot see it." Participants unanimously pointed out that when the children were very young, especially during infancy, they were unable to speak; therefore, the mothers faced major challenges to find the motives of cries, sounds, and requests of their children. Leyli said: "It is my daily challenge that when she cries I cannot see my baby's face to find the reason immediately." Shabnam said, "Recently my baby had a fever; suddenly my sister shouted, 'The baby! The baby is having a

seizure!’ That was a bad event when I realized the importance of vision.” Based on the participants’ declarations, however, this challenge decreases gradually once the children learn to speak.

Discussion

This study explored the mother-child interaction experiences of a small group of Iranian mothers who are blind. The main and overarching theme that emerged from the data was that all the women were “close nurturers.” The main theme was extracted from six themes: monitoring by alternative senses, monitoring by careful calls and staying vigilant, loving by heart and imagining in mind, discovering the child’s intentions, parenting anxiety, and deficits in communication. This study showed that mothers who are blind interact with their sighted children through unique ways.

According to this study, blindness forced these mothers to adjust their mother-child interaction styles. Although vision is the primary way of discovering the external world of human beings, mothers who are blind use alternative ways to discover and express their love and emotions to their child. Some of these alternative approaches include touch, smell, and active listening. These ways are valuable channels used by mothers who are blind to locate and discover the needs of their children in the absence of vision. Turning to alternative senses or abilities is an important coping mechanism that helps these mothers in communicating and bonding with their children (Shackelford, 2004). The use of physical touch, such as holding hands, hugging, and kissing, are primary approaches to express parental love. According to previous studies, touch is re-

lated to positive outcomes in health, development, emotions, and social relationships (Jorge et al., 2014). Beyond helping in social development, touching can affect infants’ physical and cognitive development in the first year of life (Ardiel & Rankin, 2010). These benefits might be more fundamental when the mother is blind because touch is the primary alternative way for blind people to be oriented in relation to their surrounding environment. Also, attachment and belonging needs of mothers who are blind in relation to their children can be satisfied by touch, smelling, and listening.

Generally, for women who are blind, motherhood is accompanied by a range of psychological issues such as anxiety, depression, and adjustment disorders (Stevenson & Fear, 2016). In addition, we could add the limitations imposed by blindness to the issues faced by mothers who are blind that disrupt mother-child interaction (Marcus & Heringhausen, 2009). Based on the findings of the current study, these mothers experience anxiety because of their limited control over their children. Anxiety due to deficits in monitoring the child’s presence or location was the primary challenge that bothered the mothers in their daily lives. Although most of them implied that they used strategies such as attaching bells to their child’s clothes or hanging a sound-producing object around their child’s neck, they believed that these strategies cannot completely relieve their concerns regarding their children’s safety. To a degree, the mentioned anxiety about safety is decreased when the child is able to communicate with the mother by speaking. In addition, this study showed that

mothers who are blind used a type of staying on-call regarding their children. Although this strategy can be stressful for these mothers based on their narratives, it decreases their anxieties and worries.

Discovering a child's intentions was an important aspect of blind mother-child interaction. Through a process of intention-reading, the mothers tried to discover the reasons that caused their child to cry or to be restless (Shackelford, 2004). To better interpret their preverbal children's needs, the mothers in this study used a process of elimination to understand what their children were requesting.

In many societies, *love* is a key term for describing mothers. Mothers typically see their children through their eyes and create an image of them in their minds. In the current study, there was a common feature among mothers who are blind, which was "loving by heart and mind." They understood intuitively how to be aware and to make an emotional connection with their children. Using imagination to create a picture of their children was a cognitive process that mothers who are blind used to feel close to their offspring.

Practice implications

Health professionals—especially nurses, midwives, physicians, home care providers, and social workers at any level of the health care delivery system—should carefully assess and pay special attention to the interaction challenges of mothers who are blind with their children. These mothers have their own unique style for interacting and parenting their children—abilities that health care workers and early interventionists need to understand and appreciate when providing services.

RECOMMENDATIONS FOR FUTURE RESEARCH

A significant void exists regarding child-rearing practices of mothers who are blind. Future research developed from this study's findings could include an effort to study the quality of life of children with these mothers. One approach could be to study the interaction experiences of blind children with their sighted mothers. Finally, knowing more about the educational status of children whose mothers are blind would be of great interest. Similarly, comparing the differences between mothers who are blind and those who are sighted in child raising across cultures would be of value.

LIMITATIONS

As with all qualitative studies, the results must be interpreted in relation to their contexts, time, and place. Difficulty in accessing suitable participants based on inclusion criteria was another limitation of the study.

Conclusions

According to this study, blindness changes parenting activities and attachment styles in mothers. The mothers who are blind who were involved in this study used alternative ways to care for their children. These approaches helped them in coping with the limitations and thereby decreased the level of child-related anxiety. "Close nurturers" is the core concept of blind mother-child interaction, and health professionals and service providers should consider this theme when providing services to these mothers.

References

- Ardiel, E. L., & Rankin, C. H. (2010). The importance of touch in development. *Paediatrics and Child Health, 15*(3), 153–156.

- Chiesa, S., Galati, D., & Schmidt, S. (2015). Communicative interactions between visually impaired mothers and their sighted children: Analysis of gaze, facial expressions, voice and physical contacts. *Child: Care, Health and Development*, 41(6), 1040–1046.
- Freiburger, M. A. (2010). *Mothers as children's first and best teachers: An institutional ethnography* (Unpublished doctoral thesis). University of Kansas, Lawrence, Kansas.
- Gutman, C. (2005). *The parenting experiences of people with vision impairment* (Doctoral thesis). Retrieved from ProQuest Dissertations & Theses Global database. (3189217.) Ph.D.
- Hashemi, H., Khabazkhoob, M., Emamian, M., Shariati, M., & Fotouhi, A. (2012). Visual impairment in the 40- to 64-year-old population of Shahroud, Iran. *Eye*, 26(8), 1071–1077.
- Jorge, H. M. F., Bezerra, J. d. F., Oriá, M. O. B., Brasil, C. C. P., Araujo, M. A. L. d., & Silva, R. M. d. (2014). The ways in which blind mothers cope with taking care of their children under 12 years old. *Texto & Contexto—Enfermagem*, 23, 1013–1021.
- Katibeh, M., Pakravan, M., Yaseri, M., Pakbin, M., & Soleimanizad, R. (2015). Prevalence and causes of visual impairment and blindness in central Iran: The Yazd Eye Study. *Journal of Ophthalmic & Vision Research*, 10(3), 279–285.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. New York: SAGE Publications.
- Marcus, S. M., & Heringhausen, J. E. (2009). Depression in childbearing women: When depression complicates pregnancy. *Primary Care*, 36(1), 151–165. doi: 10.1016/j.pop.2008.10.011
- Pascolini, D., & Mariotti, S. P. (2012). Global estimates of visual impairment: 2010. *British Journal of Ophthalmology*, 96(5), 614–618. doi: 10.1136/bjophthalmol-2011-300539
- Polit, D. F., & Beck, C. T. (2010). *Essentials of nursing research: Appraising evidence for nursing practice*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Rogers-Cook, J. L. (2011). *An intersectional approach to mother-child interaction research: Intergrating women's studies and nursing science* (Unpublished doctoral thesis). The University of North Carolina, Chapel Hill.
- Shackelford, S. L. (2004). *Blind mothers' perceptions of their interactions and parenting experiences with their sighted infants and toddlers* (Doctoral thesis). Retrieved from ProQuest Dissertations & Theses Global database. (3150727.)
- Shamshiri, M. (2014). *A journey into blind people's lifeworld: A phenomenological study* (Unpublished doctoral thesis). Iran University of Medical Sciences (IUMS), Tehran.
- Stevellink, S. A., & Fear, N. T. (2016). Psychosocial impact of visual impairment and coping strategies in female ex-service personnel. *Journal of the Royal Army Medical Corps*, 162(2), 129–133. doi: 10.1136/jramc-2015-000518
- Van Manen, M. (1990). *Researching lived experience: Human science for an action-sensitive pedagogy*. New York: SUNY Press.
- World Health Organization. (2014). *Visual impairment and blindness* (Fact Sheet N° 282). Retrieved from <http://www.who.int/mediacentre/factsheets/fs282/en>

Zahra Behboodi Moghadam, BSM, MSM, Ph.D., associate professor, Department of Reproductive Health, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran; e-mail: behboodi@tums.ac.ir. **Shahrazad Ghiyasvandian, BSN, MSN, Ph.D.**, associate professor, Department of Medical-Surgical Nursing, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran; e-mail: shghiyas@yahoo.com. **Samira Shahbazzadegan, BSM, MSM, Ph.D. candidate**, Department of Reproductive Health, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran; e-mail: samirashahbazzadegan2000@yahoo.com. **Mahmood Shamshiri, BSN, MSN, Ph.D.**, assistant professor, Department of Medical-Surgical Nursing, School of Nursing and Midwifery, Ardabil University of Medical Sciences, Ardabil, Iran; e-mail: m.shamshiri@arums.ac.ir. Please address all correspondence to Dr. Shamshiri.