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Breastfeeding in the midst of adversity: an interpretative phenomenological analysis of breastfeeding in adolescent mothers

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Abstract

Background Breastfeeding prevalence, exclusive breastfeeding, and continuous breastfeeding until two years of age are less common among adolescent mothers than in adult mothers. Using a phenomenological approach, the present study aimed to explore the lived experiences of breastfeeding among adolescent mothers.

Methods The present qualitative study was written using Van Manen's descriptive-interpretive phenomenology approach. Purposive sampling was conducted to achieve maximum variation. Data were gathered through a semi-structured face-to-face interview with 10 primiparous adolescent mothers. The interviews continued until the data were saturated. The data were analyzed using 3 th - 6 th stages of Van Manen's approach with MAXQDA software (version10).

Results Four main themes were identified concerning the breastfeeding experience of primiparous adolescent mothers: (1) challenges and obstacles of breastfeeding in adolescent mothers, (2) attitudes and social support with successful breastfeeding, (3) experience significant changes in life after breastfeeding, and (4) the paradox of adolescent mothers'feelings about breastfeeding. These four main themes were formed by combining the eleven subthemes.

Adolescent mothers face numerous challenges during breastfeeding, including: breast issues like nipple soreness, premature infants and their inability to suck effectively, insufficient breastfeeding skills in the mother, prolonged hospitalization of the baby in the intensive care unit, pressure from those around to use formula, lack of social support from family and healthcare providers, societal judgment, poverty and life difficulties, and feelings of failure after discontinuing exclusive breastfeeding.

Conclusions The current study revealed that adolescent mothers face various challenges during breastfeeding, and these mothers require considerable social support from their families, policymakers, and healthcare providers to succeed in this endeavor. Additionally, breastfeeding offers mothers a sense of maternal identity, and the success or failure of breastfeeding significantly impacts their emotional well-being. Therefore, it is recommended that families and healthcare providers develop necessary interventions to educate and support these mothers in their breastfeeding journey.

Keywords Adolescent Mothers, Breastfeeding, Interpretative Phenomenological Analysis, Lived Experience

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Introduction

Breastfeeding prevalence and exclusive breastfeeding are less common among adolescent mothers than in adult mothers [1, 2]. Adolescent mothers, defined as those under the age of 19, breastfeeding, according to the World Health Organization (WHO), is referred to as"feeding under exceptionally difficult circumstances"[3].

The WHO recommends that babies be exclusively breastfed until six months of age. Despite these recommendations, approximately 48% of infants worldwide receive breast milk for up to six months [4]. Various countries such as Turkey, Thailand and Bangladesh have lower breastfeeding rates among adolescent mothers than the global average [2, 5, 6]. In Canada, the rate of exclusive breastfeeding among adolescent mothers is 22% and among adult mothers is 51%. [7] at three months, 19.3% of mothers aged 20 years in the United States exclusively breastfed their infants [8]. In Nigeria, the rate of exclusive breastfeeding among adolescent mothers is 37.6% [9]. There is no information on the rate of breastfeeding in adolescent mothers in IRAN.

Breast milk is the optimal nutrition for babies of adolescent mothers. Since their infants often encounter health issues due to premature birth, low birth weight, and intrauterine growth restriction (IUGR), which can have both short-term and long-term effects on their health, [10] breastfeeding can alleviate the severity of these health problems. Human milk contains antibodies and enzymes that promote infant growth [11]. Additionally, research indicates a strong association between breastfeeding and bonding in adolescent mothers [12]. Breastfeeding also reduces healthcare costs for families and communities. Evidence shows that a decline in breastfeeding correlates with increased economic costs related to growth and productivity, environmental losses, and social costs, including infant and maternal mortality [13, 14]. Furthermore, as taking on the role of mother presents challenges for adolescent mothers, successful breastfeeding can provide them with a sense of accomplishment in their maternal role. Biologically, breastfeeding enhances the secretion of oxytocin, prolactin, and cholecystokinin hormones. These hormones reinforce maternal behavior, reduce stress by promoting relaxation, and assist mothers in fulfilling their roles [15, 16].

According to age and socio-economic conditions, the factors influencing infant feeding methods vary between adolescent and adult mothers. Many adolescent mothers find themselves in challenging social and economic situations and face numerous physical, psychological, social, and spiritual obstacles [17, 18]. These challenges include a constant need for support and training, inadequate breastfeeding and baby care skills, psychological issues, low self-efficacy, lack of self-confidence, multiple responsibilities, insufficient social and spiritual support, disruptions in education, social stigma, and negative cultural perceptions regarding their parenting abilities. These mothers must adapt to the physical changes of puberty, navigate role conflicts, and manage the challenges of breastfeeding during the stressful period of adolescence. Such difficulties can lead adolescent mothers to struggle significantly in fulfilling their breastfeeding responsibilities [19–22]. The study by Luthje et al. revealed that adolescent mothers often lack knowledge and skills related to breastfeeding and do not receive adequate support from families and healthcare providers, making it more challenging for them to address breastfeeding issues [23].

In addition to the previously mentioned cases, sociocultural issues are also among the factors influencing the breastfeeding practices of adolescent mothers. The cultural and traditional beliefs held by families about adolescent mothers breastfeeding, along with the support and companionship from family and partners, can significantly affect the breastfeeding experiences of this mothers [24, 25].

In Iran, due to the cultural and religious conditions of society, marriage, followed by pregnancy and childbirth in adolescent girls, is significant, with a marriage rate of 13 percent among girls aged 10 to 18 [26]. However, despite the importance of breastfeeding for adolescent mothers, it is not addressed in Iran's breastfeeding guidelines, and the breastfeeding practices of this group are overlooked in the Iranian health system. Therefore, a qualitative study was necessary to explore this phenomenon. Evidence from qualitative studies can shed light on the priorities, challenges, and concerns these mothers face regarding breastfeeding, which often remain hidden and poorly understood. Qualitative research offers these mothers a platform to share their views and experiences, ultimately providing valuable insights for healthcare providers to better support them and promote breastfeeding [27]. Qualitative studies, such as phenomenology, are particularly valuable when the goal is to delve beyond central concepts and essences to interpret contextualized human experiences. Phenomenology emphasizes individuals'lived experiences in their world and the meanings they derive from them. To understand the breastfeeding phenomenon among adolescent mothers, it is essential to grasp the meaning by interpreting mothers' life experiences within the socio-cultural context of their lives [28].

The results of the current study, while identifying the challenges and issues of breastfeeding among adolescent mothers and uncovering the structural dimensions of this phenomenon, can serve as a foundation for designing interventions and support programs tailored to their

needs within the health systems of various countries. According to the researcher's investigations, there has been no prior research on the meaning of the lived experience of breastfeeding among Iranian adolescent mothers. Consequently, the lived experience of breastfeeding in adolescent mothers in our country remains largely unknown to healthcare professionals. Given the importance of breastfeeding for the infants of adolescent mothers, along with the numerous unidentified obstacles and characteristics surrounding the meaning and perception of the breastfeeding experience in these mothers, the present study was conducted within the Iranian social, cultural, and economic context to explore the lived experience of breastfeeding among adolescent mothers using a phenomenological approach.

Methods

The present study is a qualitative study that was conducted using Van Manen's (1997) hermeneutic phenomenological method, and its purpose was to explore the meaning of the lived experience of breastfeeding in primiparous adolescent mothers. Van Manen's phenomenology is a descriptive methodology based on Husserl's philosophy and an interpretive approach founded on Heidegger's philosophy. Hermeneutic phenomenology is employed when a research question attempts to identify the meanings of a phenomenon to comprehend the human experience, and the aim is to gain a profound insight into the nature of our daily lived experiences [29]. The grounds for employing Van Manen's method (1997) are closely related to phenomena. Additionally, it highlights various factors that shape the meaning of lived experience. Since cultural, socioeconomic, and demographic elements affect the significance of breastfeeding among adolescent mothers, Van Manen's method appears suitable for the current study [30]. In six steps, Van Manen attempted to present phenomenology in a contemporary and modern manner, which was also followed in the current work [29].

Participants and the study environment

The current study was conducted in Iran at educational hospitals and healthcare facilities in Mashhad and Urmia. The number of births registered to adolescent mothers (10–19 years old) in Mashhad and Urmia provinces is eight thousand and four thousand, respectively. Since the first author is from Urmia and the other authors are from Mashhad, these two cities were chosen as sampling locations. It can be argued that adolescent mothers across different regions of the same country have varying perceptions of breastfeeding, influenced by cultural and socioeconomic differences, which adds to the diversity and complexity of the sampling data [6, 30].

The study's inclusion criteria include: married adolescent primiparous mothers (10–19 years old) with a child under two years old who had breastfed at least once, the absence of any abnormalities or disease in the baby or mother that is as an absolute contraindication[1] to breastfeeding and willingness to participate in the study and the ability to communicate with the researcher. The mother's unwillingness to cooperate in the study at any time during the study served as an exclusion criterion.

Sampling

Sampling was done purposefully and with maximum variation. As a result, an effort was made to select mothers of various ages, social and economic classes, education levels, modes of birth, ages of the child, and terms of breastfeeding postpartum issues (cleft nipple, indented nipple, and other similar cases). For this reason, mothers were chosen from educational hospitals and healthcare centers. Information about the mothers was gathered from electronic records available in hospitals and health centers. After the first author (AY) contacted the adolescent mothers and provided them with a brief overview of the study's objectives, their consent to participate in the research was obtained, and an interview was scheduled. Before the interview, written consent was secured from both the mothers and their husbands. The mothers granted permission to record the interview. The interview location was chosen based on the participants'convenience, such as health centers, hospitals, or parks. Sampling continued from October 2022 through June 2023. During this period, the first author (AY) reached out to 13 adolescent mothers with children under the age of two, conducting in-depth interviews with 10 of these mothers (three mothers declined to participate in the study and interview; one had relocated to another city, while the husbands of the other two did not permit their participation). Table 1 summarizes their characteristics. The interviewed mothers ranged in age from 14 to 18 years, all mothers had primary education, and they were housewives. The children's ages varied from 30 days to 15 months. Five mothers exclusively provided breast milk or complementary feeding with breast milk to their children, while four mothers used formula, and one mother mixed formula with sugar water after stopping breastfeeding (Table 1).

[1] Galactosemia in the infant, the mother's lack of use of chemotherapy medications or drugs that prohibit breastfeeding, such as radioactive iodine and lithium, the absence of herpes simplex lesions in the mother's breast, the mother's lack of AIDS.

Table 1 Demographic characteristics of adolescent mothers

Type of delivery	Duration of breastfeeding (Month)	G.A[1]	Type of child nutrition	Child's age (Month)	Spouse's occupation	Spouse's age	Mother's age (years)	Interviewee
N.V.D[2]	8	Term	Breastfeeding + Complementary feeding	8	Self-employed	26	18	P1
N.V.D	1	Term	Breastfeeding	1	Worker (self-employed)	23	16	P2
N.V.D	1	Term	Formula + sugar water	4	Worker (self-employed)	20	16	P3
C.S[3]	2	Preterm	Formula	4	Soldier	21	14	P4
N.V.D	3	Term	Breastfeeding	3	Worker (self-employed)	22	15	P5
C.S	9	Term	Breastfeeding + Complementary feeding	9	Worker (self-employed)	27	16	P6
N.V.D	13	Term	Breastfeeding + Complementary feeding	13	Worker (self-employed)	30	17	P7
N.V.D	3	Term	Formula + Complementary feeding	11	Worker (self-employed)	21	15	P8
C.S	15(Day)	Preterm	Formula + Complementary feeding	15	Worker (self-employed)	31	17	P9
N.V.D	20 (Day)	Term	Formula	3	Worker (self-employed)	26	14	P10

[1] Gestational Age

[2] Normal Vaginal Delivery

[3] Cesarean Section

Data collection

The first author (AY, possessing the requisite skills in conducting interviews and qualitative research) carried out face-to-face, semi-structured interviews with participants, each lasting around one hour (time range: 48–75 min) to gather data. Mothers were invited to share their breastfeeding experiences and respond to open-ended questions. The interview guide included the following questions:"How was your breastfeeding experience?","What are your general thoughts about breastfeeding?","How do you feel when you breastfeed/formula your baby?","What does breastfeeding mean to you?"and"What is breastfeeding like for you?", in accordance with Van Manen's (1997) interpretative descriptive phenomenology [30], the interview guide is provided in S1. Mothers were encouraged to give more information by using prompts such as"Can you tell me more about that?"or"Can you give me an example of this?"Following the distribution of the interview guide by the interviewer, the participants were invited to speak freely and extensively about their experiences. We also offered these mothers the option of expressing their emotions or remaining silent to focus on the experience. Their behavioral and nonverbal states were captured using field notes and retained in a personal diary during the interview. The researchers paid particular attention to bracketing their ideas and mental assumptions throughout the interview and data collection. As a result, the first author (AY) expressed her understanding of breastfeeding in adolescent mothers to bracket the researcher's assumptions and prevent them from influencing the study findings at the beginning of the investigation.

Participants two and five were interviewed twice to gather additional information. All interviews were digitally recorded by an audio recorder and were transcribed verbatim by the first author (AY). Data were saturated when no new information or themes were discovered with additional interviews and at least two subthemes were identified under each main theme. The interviews were conducted in Persian and then translated into English following analysis.

Data analysis

Data analysis was mainly based on Van Manen's steps 3 to 6: reflecting on the main themes that highlight the phenomenon's characteristics, describing the phenomenon in the art of writing and rewriting, maintaining a strong and oriented relation to the phenomenon, balancing the research context by considering the parts and the whole [29]. Data analysis and management were carried

out using the MAXQDA software (v. 10, VERBI Software GmbH, Berlin). Three of the authors (AY, TKH and FZK) who are familiar with qualitative data analysis, independently analyzed the data.

The reliability of the findings

The first author (AY) attempted to establish a decent relationship with adolescent mothers and gain their trust to meet the criteria of direction, strength, richness, and depth regarding the quality of qualitative studies [29]. Furthermore, the researcher attempted to determine the significance of data through consistent and regular studying. The criteria of Guba & Lincoln (credibility, reliability, confirmability, and transferability) have also been considered [31]. To establish credibility in our research, we employed diverse sampling, an extended involvement of the researcher in the field, and peer and participant review. Additionally, the research team's prior experience in qualitative research and clinical practice enhanced confirmability. All team members have endorsed the data analysis process to ensure dependability. To ensure reliability, the first author immediately recorded and transcribed all interviews, and all documents were reviewed and approved by three faculty members not involved in the study. To ensure transferability, we aimed to offer comprehensive explanations of the context and findings, allowing readers to determine whether to apply this knowledge in different situations. To ensure confidentiality, the names of the adolescent mothers have not been disclosed, and the quotes in the article are presented under pseudonyms. The audio files of the interviews are securely stored, accessible only to the authors, and have not been published.

Results

According to the current study's objective, which was, discovering the meaning of the lived experience of breastfeeding in adolescent mothers, the central theme of"breastfeeding in the midst of adversity"emerged from four main themes, including: (1) challenges and obstacles of breastfeeding in adolescent mothers, (2) attitudes and social support with successful breastfeeding, (3) experience significant changes in life after breastfeeding, and (4) the paradox of adolescent mothers'feelings about breastfeeding (Table 2).

The findings of this study revealed that Iranian adolescent mothers face numerous challenges during breastfeeding. However, due to their knowledge, attitudes, and the receipt of adequate social support, some mothers successfully overcame these obstacles and breastfed their children with their own milk. Consequently, given the various problems and challenges that many of these mothers encounter during breastfeeding,"Breastfeeding in the midst of adversity"was selected as the central theme.

Challenges and obstacles of breastfeeding in adolescent mothers

This main theme addresses the challenges and issues that mothers encounter while breastfeeding. In some cases, this resulted in a child being deprived of breast milk, while in others, the mother overcame the obstacles with significant effort and continued breastfeeding. Some of these issues are directly related to breastfeeding, while others are daily challenges that affect breastfeeding, which emerged from the four subthemes of"mother's young age and breastfeeding problems","loneliness during breastfeeding","stigma", and"mother's life issues".

Table 2 Presents a summary of the emerging main themes and sub-themes

Subthemes	Main themes	Central theme
-Mother's young age and breastfeeding problems -Loneliness during breastfeeding - Stigma -Mother's life issues	Challenges and obstacles of breastfeeding in adolescent mothers	Breastfeeding in the midst of adversity
-Exclusive breastfeeding with social support - Knowledge and attitude of mothers with exclusive breastfeeding	Attitudes and social support with successful breastfeeding	
- Connecting to adult roles - Alleviating mother's problem —Attachment and bonding	Experience significant changes in life after breastfeeding	
-Feeling proud or defeated - Feeling pleasure or pain	The paradox of adolescent mothers'feelings about breastfeeding	

Mother's young age and breastfeeding problems

In their accounts, some adolescent mothers reported not feeding their children with breast milk. For these mothers, common issues during breastfeeding, stemming from both breast and baby factors, led to breastfeeding failure. Consequently, they experienced nipple stiffness and soreness, insomnia at night, a perception of insufficient milk supply, the infant being premature and fed by gavage, and the baby's low birth weight.

"My child was restless at night and couldn't sleep; I didn't know how to calm her down; I gave her formula because I thought my milk wasn't sufficient," (P4).

After witnessing these challenges, family members and healthcare professionals repeatedly advised adolescent mothers to stop breastfeeding and switch to formula milk.

"My baby's weight was low. The doctor said you should give her (the baby) formula, so I gave her formula," (P3).

Despite acknowledging the benefits of breast milk, these mothers lacked the autonomy to choose their infant's feeding method. Instead, those around them, particularly the grandparents, made decisions in this regard, leaving adolescent mothers unable to oppose the choices made by their grandmothers.

"My mother-in-law told me to give her formula so that she would gain weight sooner. I gave her formula, but I wanted to give her my milk," (P8).

Some adolescent mothers delivered prematurely due to premature rupture of the amniotic sac or pre-eclampsia, resulting in their infants spending an extended period in the special care unit and being fed via gavage. The child's feeding continued with formula due to insufficient breast milk production or inadequate weight gain in these babies.

"When my daughter was in the hospital, I expressed my milk for the first few days and gave her through a syringe (gavage), then the doctor said that your baby's weight gain was low, and we should give her formula,"(P9).

Some mothers who had ceased exclusive breastfeeding earlier than they wished believed they couldn't produce milk because their breasts hadn't matured sufficiently due to their young age. In Iran, adolescent girls in schools are not given the essential information about the physiology of breast milk production, leaving them unaware of how milk is produced in the mother's breast and their physiological capabilities to produce it. These mothers lacked self-efficacy regarding breastfeeding and struggled to manage breastfeeding challenges. When faced with breastfeeding issues, they often stopped immediately and resorted to formula feeding.

"Because I am young and my breasts are small, they cannot produce milk, so I give formula to my child," (P10).

"When my nipple was sore, I didn't know what to do to heal it," (P2).

Loneliness during breastfeeding

Several adolescent mothers reported that their husbands did not offer sufficient psychological support during breastfeeding and after the baby's birth. They received little assistance or encouragement from their spouses regarding child care or breastfeeding. Husbands with lower age and education levels typically provided less psychological support to their wives during breastfeeding. Additionally, these husbands were not involved in deciding the type of infant feeding (breast milk/formula), with adolescent mothers and grandmothers making those decisions.

"My husband doesn't support me to breastfeed at all. He never encouraged me. My husband never wakes up to do anything when the baby wakes up at night to feed," (P8).

"My husband did not comment on whether I should give my baby formula or breast milk," (P4).

Despite receiving prenatal care at health centers or private gynecologists'offices, all adolescent mothers reported that they did not receive breastfeeding training at these facilities. They lacked the essential skills to initiate breastfeeding and were unaware of how to address common breastfeeding issues. The absence of crucial knowledge and information about breast milk, along with the lack of necessary skills for breastfeeding, was a significant factor contributing to the failure of breastfeeding among adolescent mothers.

"I have been going to the health center since I got pregnant, but they only controlled my height and weight and did not give me any training on how to breastfeed or treat my sore nipples," (P2).

Some of these mothers claimed that the hospital staff did not assist them in breastfeeding after the baby was born and that they were disrespectful in their responses to requests for assistance.

"I asked them (midwives) to hold the baby until the milk stopped, and they answered you should hold

and take the baby yourself; you can't just lie down on the bed, you have to breastfeed your baby yourself," (P1).

Stigma

Some health professionals and family members criticized and blamed adolescent mothers for becoming pregnant and breastfeeding at such a young age, as they lacked confidence in their ability to breastfeed. Additionally, some individuals around them instilled a sense of inadequacy regarding their capacity to give birth and breastfeed.

"My mother and grandmother used to tell me that your breasts can't naturally produce milk, give her formula, and they blamed me because I gave my milk to my baby,"(P2).

Mother's life issues

Some adolescent mothers reported experiencing stress and worry due to their life challenges, which negatively affected the quality of their breastfeeding. Several of these mothers faced financial difficulties, and their husbands earned insufficient income from their jobs. Consequently, they struggled to provide adequate nutrition for themselves while breastfeeding and preparing formula for their children, leading to anemia in the mother and low weight in the child.

"My husband is a hand seller, and he has very little income, so I cannot buy formula for my baby. I give him sugar water and I cannot buy healthy food for myself,"(P3).

The husband's unemployment, addiction, and living with his family have compelled some mothers to contemplate and worry about their futures and their children. The spouse's addiction may lead to disputes and conflicts between the mother and the husband, which can harm the mother's emotional well-being and disrupt milk production.

"After a fight with my husband, my milk secretion stopped for a few hours, and I had to feed the child with sugar water,"(P5).

Attitudes and social support with successful breastfeeding

This main theme illustrates a situation in which, despite the adolescent mother's challenges with breastfeeding, the infant still benefits from breast milk, and the foundation for breastfeeding in the adolescent mother is established. This theme emerged from the two subthemes of"exclusive breastfeeding with social support"and"knowledge and attitude of mothers with exclusive breastfeeding".

Exclusive breastfeeding with social support

All adolescent mothers lacked the essential knowledge and skills to initiate breastfeeding, so they had to learn the necessary recommendations for increasing milk production after their baby's birth while breastfeeding. These mothers reported that the midwife was present during their first breastfeeding experience in the delivery room and guided them on how to effectively perform breastfeeding. They required the support of healthcare workers to begin breastfeeding in the hospital.

"I didn't know anything; I breastfed with the help of the midwives. They came and put my breast in my child's mouth for them to eat," (P2).

Several family members, particularly the older sister and maternal grandmother, who possessed essential knowledge about the significance of breast milk, offered invaluable support in initiating breastfeeding and addressing the challenges faced by adolescent mothers. They consistently encouraged the mother to persist with breastfeeding and were present with her in the days following her birth. Furthermore, they sought to resolve the issues related to breastfeeding in adolescent mothers by employing home remedies for complications such as nipple soreness or breast engorgement.

"I didn't know how to breastfeed myself; my mother was always by my side and helped me with breastfeeding," (P6).

Some spouses assisted mothers in exclusively feeding their children and supported them by caring for the child and providing sufficient nutrition to mothers while breastfeeding. Most men who had higher age and education support mothers to breastfeed.

"When my husband comes home from work, he does the housework so that I can breastfeed and take care of the baby more easily," (P1).

Knowledge and attitude of mothers with exclusive breastfeeding

This subtheme outlines the factors that influence the initiation and continuation of breastfeeding among adolescent mothers, as well as the health benefits of breastfeeding for children. Most adolescent mothers who breastfed their infants recognized the advantages of breast milk and maintained a positive attitude towards it. Despite facing challenges such as nipple soreness, breast engorgement, fatigue, sleeplessness, and hospitalization,

they remained enthusiastic about breastfeeding. They opposed the use of formula for feeding their babies.

"My nipples were sore in the first few days, but I still wanted to breastfeed her myself. When I breastfeed, it is very enjoyable for me; I don't want her to eat powdered milk at all," (P1).

After observing breastfeeding among close relatives, understanding the benefits of breastfeeding, and feeling a sense of responsibility for their child's health, these mothers chose to breastfeed even before their children were born.

"Before my daughter was born, I decided to exclusively breastfeed her. It is good for the child and contributes to healthy growth," (P7).

These mothers were attempting to breastfeed their children, while those whose babies were hospitalized in the intensive care unit for an extended period due to premature birth expressed their milk and provided it to their infants through gavage to enhance their health.

"When my child was in the hospital, I stayed there to express my milk and give it to him so that he would get better soon," (P4).

Experience significant changes in life after breastfeeding

Most mothers who breastfed underwent significant changes in their lives due to the experience, leading them to feel a deeper sense of maturation and identity as mothers. Additionally, they discovered motivation to continue living and face life's challenges. In this warm light, they forgot the loneliness and stresses of life, feeling love and attachment towards their child. This theme arose from the integration of three subthemes:"connecting to adult roles","alleviating mother's problem"and"attachment and bonding".

Connecting to adult roles

Breastfeeding was viewed by most adolescent mothers as the beginning of their maternal roles, and they believed that through this act, they would experience the sensation of motherhood for the first time.

"When I breastfed her for the first time, she gave me a motherly feeling. It was as if I understood that I became a mother at that moment," (P3).

Furthermore, these mothers felt mature while breastfeeding, perceiving themselves no longer as adolescents. After nourishing their children with their milk, they believed they had transitioned into adulthood, experiencing self-efficacy and empowerment. They also felt a sense of responsibility for ensuring their child's adequate health and growth.

"In the early days, when I was breastfeeding her, I said to myself that now I have a daughter, and in a way, I had grown up (smiles). And I was no longer a child. I had to think like an adult. It felt like my world had changed," (P5).

Alleviating mother's problem

Some adolescent mothers faced severe family circumstances stemming from their husbands'addictions, poverty, the birth of a premature baby, and the baby's extended hospital stay, compounded by the mother's upbringing in an orphanage without a family. Breastfeeding served as a balm for these mothers'worries, allowing them to momentarily forget their life problems. For a mother who had long experienced loneliness due to her family situation and had never savored the joy of having a family, breastfeeding represented the possibility of finding that connection.

As P1 who grew up in an orphanage due to her parents' divorce stated in this regard:"*When I breastfed my baby and caressed him, I felt that I was not alone anymore, and I no longer felt lonely. I used to think I had no one and was all alone in the world, but since I could breastfeed him, I no longer feel lonely* (she is about to cry)"(P1).

All adolescent mothers who breastfed their children reported that they forgot the challenges of raising and caring for their child.

"When I breastfeed my baby, I forget all the challenges I face in raising him,"(P7).

Breastfeeding in the hospital, even through gavage, alleviated the stress experienced by mothers whose babies were hospitalized in the intensive care unit due to preterm birth. In a sense, all the challenges of caring for the infant in the hospital and the mother's prolonged presence at her baby's side would diminish with breastfeeding. Breastfeeding sparked a flame of hope within the mother's heart for her child's health.

"At the hospital, the only times I felt good were when I expressed my milk and fed it to my child using a syringe (gavage). When I breastfed and nursed my child, I could endure the challenges. I would relax, and my stress would fade away,"(P9).

Attachment and bonding

Breast milk was considered so precious and vital to mothers who breastfed exclusively that it was called the essence of the mother's soul. They viewed breastfeeding as a manifestation of a mother's love, sacrifice, and selflessness, where the mother entrusts her life to the one

she loves deeply, prioritizing the child's needs and caring for them above all else.

"Breastfeeding for a mother is like giving your whole being to a person who is your entire being," (P6).

Breastfeeding also made these mothers feel more attached and affectionate towards their children and established a bond between them.

"Breastfeeding is like an attachment; when you breastfeed, you feel the baby enters your heart. Both the mother and the baby depend on each other; it's like a bond, it's like a strong rope," (P5).

The paradox of adolescent mothers'feelings about breastfeeding

Adolescent mothers'inconsistent feelings regarding breastfeeding are evident in this theme, as some reported pleasure and satisfaction, while others found the experience challenging and exhausting. Mothers who successfully fed their babies with their milk felt a sense of pride, whereas those who struggled expressed regret and despair. This theme developed from the integration of two subthemes:"feeling proud or defeated"and"feeling delight or pain".

Feeling proud or defeated

After a period, several adolescent mothers who had fed their children formula conveyed feelings of sorrow, self-anger, grief, and regret. When these women reflected on feeding their children, they felt defeated and expressed guilt.

"The moments when my son cries and I give him formula, I hate myself as a mother and regret not feeding my son with my milk," (P3).

In contrast, adolescent mothers who breastfed their children felt joyful, proud, valuable, and helpful.

"I feel that I am a very important and valuable person because another person depends on me, and I can satisfy them," (P2).

Feeling pleasure or pain

Most mothers who exclusively breastfed reported that the experience was enjoyable and positive, viewing it as a source of comfort for both themselves and their child.

"When my baby was sucking milk from my breast, and I was looking at him, I enjoyed it very much. I felt great," (P3).

Breastfeeding, however, can be challenging for some adolescent mothers due to issues like nipple soreness, sleepless nights, fatigue, and the need for recovery. They faced numerous difficulties while breastfeeding and described it as a painful experience, leading them to refuse and ultimately stop breastfeeding.

"I don't like breastfeeding at all. I'm not interested in doing it. Staying up all night to breastfeed is difficult; it's like climbing a mountain,"(P10).

Discussion

The current study was an interpretive phenomenological study to reveal the meaning of the lived experience of breastfeeding in adolescent mothers. The final theme of"breastfeeding in the midst of adversity"emerged from four main themes, including: challenges and obstacles of breastfeeding in adolescent mothers, attitudes and social support with successful breastfeeding, experience significant changes in life after breastfeeding, and the paradox of adolescent mothers'feelings about breastfeeding.

One of the themes discovered was the challenges and obstacles of breastfeeding in adolescent mothers, which highlights the difficulties these mothers encounter while breastfeeding and, in some cases, leads to the infant being deprived of breast milk. These challenges often included adolescent mothers'limited independence in choosing infant feeding methods, poverty, insufficient social support from family and healthcare providers, lack of education and breastfeeding skills, stigma, breastfeeding difficulties in mothers, preterm infants, and traditional beliefs held by family members.

According to Nuampa et al. (2022), cultural norms, traditional beliefs held by family members, lack of financial independence, and limited authority within an extended family were among the challenges faced by adolescent mothers during breastfeeding [32]. According to the findings of Nuampa et al. (2022) and Astuti Aw et al. (2021), the feeding habits of certain adolescent mothers are shaped by the opinions of family members, especially the traditional beliefs of grandmothers. Consequently, adolescent mothers tend to become less independent in this aspect, aligning with the findings of the current study [25, 32]. The lack of independence among adolescent mothers in feeding their children is likely due to living with their parents and residing in their household. They still hold the status of children, which increases the likelihood of developing conflicting identities and struggling to meet their parental responsibilities.

To enhance breastfeeding rates among adolescent mothers and alleviate their challenges during this period, several interventions have been implemented. For instance, the study by Bica et al. (2014) demonstrated that an educational-counseling intervention grounded in WHO principles for adolescent mothers

and grandmothers significantly increased breastfeeding rates in the intervention group compared to the control group [33].

The results of the current study indicate that adolescent mothers receive limited breastfeeding support from their husbands, which aligns with findings from previous studies [25, 34] but contradicts the results regarding breastfeeding experiences among Australian adolescent mothers [35]. It is important to note that in the culture of various Iranian cities, breastfeeding and childcare are primarily viewed as women's responsibilities, with men contributing less in this area and focusing more on earning income. Additionally, since most adolescent mothers'partners were younger and lacked high social or economic status, they dedicated nearly all their time to work and supporting the family, leaving them with less time at home to care for the child. They were also likely unaware of the importance of spousal support in the success of breastfeeding for mothers. The study by Werdani et al. (2021) indicated that factors such as the husband's income, knowledge about breastfeeding, and psychological support from the husband were associated with exclusive breastfeeding among adolescent mothers [36].

The second theme of the current research was attitudes and social support with successful breastfeeding, which pertains to acquiring social support and the positive attitudes and interest of adolescent mothers toward breastfeeding success. This theme is also highlighted in the study by Astuti et al. (2021), where young Indonesian mothers valued the experience of receiving professional assistance from healthcare providers and informal support from family to continue breastfeeding. When these mothers, similar to Iranian adolescent mothers, faced challenges in breastfeeding and nourishing their children, they turned to their close relatives, particularly their maternal grandmothers [25]. Due to a lack of prior breastfeeding experience and knowledge, adolescent mothers require extensive support (emotional, esteem, instrumental, educational, informational, and network support) from healthcare providers and their families to achieve successful breastfeeding. Consequently, in the study by Yas et al. (2023), supportive interventions from health providers and family emerged as influential factors in the breastfeeding experiences of adolescent mothers [19]. The results of Bootsri's study (2017) indicated that the social support from grandmothers enhanced the rate of exclusive breastfeeding among adolescent mothers in the intervention group compared to the control group [37].

According to a study by Sherry A. Nesbitt et al. (2012), adolescent mothers who exclusively breastfed exhibited a positive attitude toward breastfeeding and made the decision to breastfeed prior to the baby's birth, which aligns with the findings of the present study [38].

The third developing theme highlighted the onset of adult roles, such as parenthood, and the emotional connection to the baby that follows breastfeeding. According to Hunter (2014) and Macintosh and Callister (2015), adolescent mothers perceive that they are entering the maternal realm through breastfeeding, and their maternal identity is shaped by breastfeeding and caring for the child [12, 39]. The bonding between mother and child after breastfeeding in adolescent mothers is also explored in the study by Edwards et al. (2017) [40]. Breastfeeding enables mothers to engage with, touch, and caress their children more, and these elements play a crucial role in nurturing the bond and attachment between mother and child.

The fourth theme that emerged from this study was the paradox of adolescent mothers'feelings about breastfeeding, which encompasses feelings of failure after discontinuing breastfeeding and feelings of victory upon resuming it. This issue also pertains to mothers'varying interests in and disinterest towards breastfeeding. This theme is further highlighted in the study by Edwards et al. (2017), where adolescent mothers reported feeling powerful, confident, and pleased after successfully breastfeeding. These mothers felt a sense of accomplishment as they overcame breastfeeding challenges to nurse their children. Conversely, mothers who opted for formula feeding expressed regret over stopping breast milk too soon [40]. This theme was also explored in Krol KM's (2014) study, where mothers cited nipple soreness and painful breastfeeding as reasons for finding the practice challenging and expressed reluctance to continue [41].

The current study is the first qualitative research in Iran utilizing a phenomenological approach to explore the lived experiences of breastfeeding among adolescent mothers, offering valuable insights for health system providers in Iran and globally. The researchers aimed to ensure necessary variation in sampling and conducted in-depth interviews with adolescent mothers from diverse demographic backgrounds, varying child ages, and differing durations of breastfeeding experience, which constitutes one of the strengths of this research. A limitation of the current study is that none of the participating mothers were employed or students, which may have affected the comprehensiveness of their breastfeeding experiences.

Conclusion and recommendations

According to the findings of this study, Iranian adolescent mothers face numerous challenges during breastfeeding, which negatively impacts their ability to exclusively breastfeed. These mothers lack the

necessary skills to breastfeed effectively and to navigate the difficulties associated with it. Breastfeeding training is not offered by healthcare workers during pregnancy or after delivery. Additionally, they often lack the independence and self-confidence needed to choose the appropriate feeding method for their child. In some instances, these mothers do not receive adequate psychological support from their husbands. In addition, the results of the present study showed that, breastfeeding offers mothers a sense of maternal identity, and the success or failure of breastfeeding significantly impacts their emotional well-being.

Few studies have been conducted in Iran regarding the breastfeeding experiences of adolescent mothers. Consequently, future research should design and implement interventions, such as the ten steps for successful breastfeeding in hospitals, educational and counseling programs by healthcare providers, and support from grandmothers and husbands, to encourage breastfeeding among this group of mothers, taking into account the findings of the current study.

It is also recommended that healthcare practitioners provide comprehensive support for adolescent mothers'breastfeeding, starting during pregnancy. Furthermore, the health system should seek family support to promote breastfeeding among adolescent women. Since adolescent mothers often come from low-income households, financial assistance from the government, family, and benefactors is essential.

In addition to the aforementioned points, it is advisable for the healthcare systems of various countries to provide essential training to adolescent mothers to prevent early pregnancies and ensure their access to contraceptives.

Abbreviations

WHO World Health Organization
IUGR Intrauterine Growth Restriction

Supplementary Information

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Supplementary Material 1

Supplementary Material 2

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Authors' contributions

TKH, AY,AH and,FZK contributed to the study conception and design, data analysis and interpretation, and Critical revision of the manuscript. AY,FZK and TKH conducted the interviews and collect the data. AY,FZK,AH,JM and TKH wrote and revised the first draft. All authors read and approved the final manuscript.

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

The study was approved by the Ethics Committee of Mashhad University of Medical Sciences (IR.MUMS.REC.1401.110). All participants were given oral information about the goal of study, and written consent was obtained from all of the participants (since all participants were adolescents (under 18 years of age) and married, informed consent was obtained from the adolescent mothers as well as their spouses). Anonymity were secured, and participants were informed that they could withdraw from the study at any time.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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