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## Introduction

Breastfeeding is the practice of providing a newborn with solely breast milk for the first six months of life, without the use of any other vitamins, supplements, or drugs (Victora et al., 2016). The advantages for moms and babies are recognized globally. No other liquids or solids are given to a baby who is being breastfed exclusively, except liquid medication or vitamin/mineral supplements. In addition to appropriate supplemental

# Assessment of Adolescent Mothers' Knowledge Regarding Breastfeeding in Baghdad: A Cross-Sectional Study

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## ABSTRACT

**Objective:** This study aims to assess Mothers' Knowledge concerning Breastfeeding.

**Methods and Materials:** A quantitative descriptive study on breastfeeding among adolescent mothers was conducted between October 14, 2023, and October 14, 2024, to assess the mothers' awareness of breastfeeding. Medical City/Baghdad Teaching Hospital and Welfare Teaching Hospital for Children were the study sites. Fifty teenage mothers from Medical City/Baghdad Teaching Hospital and Welfare Teaching Hospital for Children were included in the non-probability (purposive) sampling. Mothers were chosen during the same time frame as the data collection. A self-report questionnaire was used to collect the data from the women. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0, focusing on frequency, percentage, mean score, and standard deviation. The Chi-square test was used to determine the relationships between mothers' knowledge and their demographic characteristics, such as age, education, and occupation. The knowledge was classified into three levels according to the mean score: (1-1.33 = Low), (1.34-1.67 = Moderate), and (1.68-2 = High).

**Findings:** This finding shows that 64% of adolescent mothers had high levels of Knowledge about breastfeeding. The overall mean score and standard deviation were (1.746±0.196).

**Conclusion:** Most adolescent mothers have a high level of knowledge about breastfeeding. The researcher recommended maintaining this high level of mothers' knowledge by providing education programs, training courses, booklets, and increasing media coverage.

**Keywords:** Assessment, Adolescent Mothers, Knowledge, Breastfeeding Practices, Iraq.

foods, WHO and UNICEF recommend that breastfeeding be initiated within the first hour of delivery, continued for at least two years, and started exclusively for the first six months (Kullmann & Leader, 2021; Stordal, 2023).

Good breastfeeding coverage is thought to lower under-five mortality rates by 13–15%, particularly in middle- and low-income countries. Just 44% of newborns worldwide obtain breast milk within an hour of delivery, and 40% of infants only breastfeed during the first six months of their lives. Breast milk contains

well-balanced, readily absorbed, and rapidly assimilated nutrients. Breastfeeding reduces an infant's risk of constipation, diarrhea, and stomach pain (Kothari et al., 2020; Kullmann & Leader, 2021).

Breastfeeding, which should begin within the first hour of life, should be maintained exclusively for six months and then sustained for up to two years or longer with appropriate and safe supplemental foods. It is one of the most effective ways to increase a child's chances of survival and overall well-being. If breastfeeding rates were raised worldwide, more than 820,000 children under five may be saved each year, with the majority (87%) being under six months old (Victora et al., 2016). Breastfeeding encourages healthy growth, enhances early child development, increases child survival, and protects against chronic and life-threatening diseases. Breastfeeding promotes healthy brain development and is associated with improved IQ scores in children and adolescents from all socioeconomic backgrounds (Kanhadilok & McGrath, 2015). However, nursing benefits both mothers and babies.

Additionally, it has been demonstrated that nursing protects against heart disease, type 2 diabetes, ovarian and breast cancer, postpartum depression, and postpartum hemorrhage (Chowdhury et al., 2015). An extra 20,000 maternal deaths from breast cancer are thought to be avoidable if breastfeeding rates are increased (Victora et al., 2016). To put it briefly, breastfeeding is one of the most effective strategies to safeguard the health of both the mother and the child, and to promote normal growth and development in the early years. The foundation of any nation's efforts to ensure the survival of every child and to create thriving, intelligent, and productive societies should be the empowerment and facilitation of breastfeeding (Amu, 2014).

Islam makes it very evident that nursing is encouraged till the child is two years old. According to the Holy Qur'an, "The mothers shall give suck to Their offspring for two whole years, for him who desires to complete the term". Several factors contribute to the beneficial effects of breastfeeding. These include the age at which the kid is weaned, the duration, and the commencement (Kommula & Kommula, 2014). Because colostrum contains high levels of protein, fat-soluble vitamins, and antibodies that protect the newborn from bacterial and viral infections, the World Health

Organization recommends nursing to begin within the first hour of birth, provided no medical issues impede it (Kothari et al., 2020). Iraq's breastfeeding initiation rate increased from 25.1% in 2006 to 43% in 2011. However, this is a considerable increase and will continue to be insufficient to guarantee all Iraqi children a fair start in life. Within the first hour of their lives, approximately 60% of children do not receive breast milk. According to a 2010 study, 17.5% of mothers in Erbil City are aware that breastfeeding should begin within the first hour after the baby's birth (Meedya et al., 2010).

Regional disparities between the North and the South may result from variations in income or other factors. Breastfeeding difficulties have been studied in southern Iraq, and sociocultural attitudes, educational attainment, and socioeconomic standing influence feeding patterns. Additionally, recent data from south-eastern Iraq indicates that formula is more expensive for families and less efficient than nursing. Many of these studies, however, assume that breastfeeding is always the best course of action and that women will breastfeed if they have access to resources, such as knowledge (Kothari et al., 2020).

## Methods and Materials

A descriptive (cross-sectional) study was conducted on the breastfeeding practices of teenage mothers from October 14, 2023, to October 14, 2024, to assess their knowledge of breastfeeding. The study was conducted at Medical City/Baghdad Teaching Hospital and the Welfare Teaching Hospital for Children. A purposive sample of fifty (according to the sample size calculator [website](#), which stated the sample size for one group, a one-tailed t-test is 50) adolescent mothers in Medical City/Baghdad Teaching Hospital and Welfare Teaching Hospital Children. The selection of mothers occurred during the same period as the data collection was conducted.

The inclusion criteria include mothers who agree to participate in this study, who are willing to participate voluntarily, have at least one child, and breastfeed their child. The exclusion criteria include mothers who refused to participate in this study.

The researcher developed the questionnaire after extensive reading and reviewing the related literature, and it consisted of four parts. The first part includes

three items concerned with the determination of the demographic characteristics of the study group, which includes the following variables (age, level of education, Occupation). The second part consists of six items concerned with determining the reproductive information of the study group, which includes the following variables: number of pregnancies, Number of births, Current gestational age, Age at marriage, Age at first pregnancy, and Previous type of breastfeeding. The third part includes seven items related to the determination of the mother's information and sources regarding breastfeeding the newborn. It consisted of 10 structured items regarding the mother's knowledge of breastfeeding. This item was developed according to (3) levels, like scale, as (I Know - I do not Know not sure), and the scale was scored as (1) I Know, (2) not sure, and (3) I don't know.

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0, focusing on frequency, percentage, mean score, and standard deviation. The Chi-square test was used to determine the relationships between mothers' knowledge and their demographic characteristics, such as age, education, and occupation.

Selected mothers have been lying in hospitals in maternity and obstetric theaters and wards, and have been asking questions about breastfeeding. A panel of nine 9 confirmed the study's validity. These experts evaluated the questionnaire format for clarity, adequacy, and relevance of the information. The questionnaire format was modified in some ways based on expert advice. Reliability is the ability to consistently measure and assess the internal quality, which is comparable to analyzing and evaluating the target quality, reliability, stability, or consistency. Accuracy is also a component of reliability; Cronbach's Alpha (0.83) indicates how dependable an instrument is.

### *Instruments*

To measure health anxiety, the Short Health Anxiety Inventory (SHAI) developed by Salkovskis et al. (2002) is used. This self-report instrument consists of 18 items and assesses individuals' health-related anxieties regardless of actual medical conditions. The inventory includes two subscales: Likelihood of Illness and Negative Consequences of Illness. Each item is rated on a 4-point Likert scale, ranging from 0 to 3, resulting in a

total score of 0 to 54. Higher scores indicate more severe health anxiety. The SHAI has been widely validated across various populations. In Iran, the validity and reliability of this measure have been confirmed in both clinical and non-clinical samples, demonstrating strong internal consistency (Cronbach's alpha > 0.80) and good construct validity.

The Chalder Fatigue Questionnaire (CFQ), developed by Chalder et al. (1993), is used to assess symptoms of chronic fatigue. This 14-item instrument evaluates both physical fatigue and mental fatigue through two subscales. Respondents rate each item on a 4-point Likert scale (ranging from 0 = "less than usual" to 3 = "much more than usual"). The total score ranges from 0 to 42, with higher scores indicating greater severity of fatigue. The CFQ has been translated and psychometrically validated in Persian for use in Iranian populations, showing satisfactory reliability (Cronbach's alpha > 0.85) and convergent validity with related health constructs.

Spiritual vitality is assessed using the Spiritual Well-Being Scale (SWBS) developed by Paloutzian and Ellison (1982). This 20-item scale comprises two subscales: Religious Well-Being (RWB) and Existential Well-Being (EWB), each with 10 items. Responses are scored on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree), yielding a total score between 20 and 120. Higher scores indicate greater levels of spiritual well-being and vitality. The SWBS has been widely used and adapted in various cultures. In Iran, multiple studies have confirmed the validity and reliability of this measure (Cronbach's alpha > 0.80), and it is frequently used in psychological and health research.

The Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet et al. (1988), is employed to measure perceived social support. The MSPSS consists of 12 items, grouped into three subscales: Family Support, Friends Support, and Significant Other Support. Items are rated on a 7-point Likert scale, ranging from 1 (very strongly disagree) to 7 (very strongly agree), resulting in total scores from 12 to 84. Higher scores reflect greater perceived social support. The MSPSS has demonstrated excellent psychometric properties in diverse populations. The Persian version has been validated in Iran, exhibiting high internal consistency (Cronbach's alpha > 0.85) and sound factorial structure.

Lifestyle is measured using the Health-Promoting Lifestyle Profile II (HPLP-II) developed by Walker, Sechrist, and Pender (1995). This comprehensive 52-item instrument assesses six dimensions of health-promoting behavior: Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, Interpersonal Relations, and Stress Management. Items are rated on a 4-point Likert scale ranging from 1 (never) to 4 (routinely), with total scores ranging from 52 to 208. Higher scores indicate a more health-promoting lifestyle. The HPLP-II has been translated and validated for use in Iranian populations, with confirmed reliability (Cronbach's  $\alpha > 0.90$ ) and construct validity across various health-related studies.

### Data Analysis

Data analysis was conducted using SPSS version 27 and AMOS version 21. Descriptive statistics, including

mean, standard deviation, frequency, and percentage, were calculated to summarize participant demographics and study variables. The relationships between health anxiety and other variables (chronic fatigue symptoms, spiritual vitality, social support, and lifestyle) were examined using Pearson correlation coefficients. Additionally, a Structural Equation Modeling (SEM) approach was employed to test the hypothesized causal model and its mediating effects. Model fit indices such as CFI, TLI, RMSEA, and  $\chi^2/df$  were used to evaluate model adequacy.

### Findings and Results

This finding indicates that among adolescent mothers aged 17-19 years, 76% were illiterate, 26% were unable to read or write, and 100% were homemakers.

**Table 1**

*Sociodemographic characteristics of mothers*

Variables	Classes	F	%
Age	13-16	12	24
	17-18	38	76
	Total	50	100
Education	Neither read nor write	13	26.0
	Read and write	12	24.0
	Primary school graduate	12	24.0
	Intermediate graduate	11	22.0
	Preparatory school graduate	2	4.0
	Total	50	100
Occupation	Government employee	0	0
	Free profession	0	0
	Housewife	50	100
	Total	50	100

According to the adolescent mothers, 98% had 1-3 pregnancies and 98% had 1-3 deliveries. The mean age of pregnancy was  $17.23 \pm 4.251$ , the mean age at marriage

was  $14.940 \pm 1.391$ , and the mean age at first pregnancy was  $15.62 \pm 1.105$ . Additionally, 40% of them used industrial feeding during the previous feeding ([Table 1](#)).

**Table 2**

*Distribution of Mothers' Reproductive Information*

Variables		F	%
Number of pregnancies	1-3	49	98
	4-6	1	2
	7 and more	0	0
	Total	50	100

Number of deliveries	1-3	49	98
	4-6	1	2
	7 and more	0	0
	Total	50	100
Variables		Mean	SD
Age of pregnancy		17.23	4.251
Age at marriage		14.940	1.391
Age at 1 <sup>st</sup> pregnancy		15.62	1.105
Variables		f	%
Type of the previous feeding	Breastfeeding	13	26.0
	Mixed	17	34.0
	Industrial	20	40.0
	Total	50	100.0

Regarding adolescent mothers 72% of them Cuddle without too much skin contact wrapped with a blanket, 54% take information from nurses or midwives to help them with breastfeeding, and 52% of nursing staff provide them with any assistance regarding the correct position of the child when breastfeeding, 36% nursing

staff guide them or give them information on how to express milk. Manually, 64% breastfed the child, 46% had the normal type of breastfeeding, 24% decreased milk production as the reason for not breastfeeding, 8% had a personal preference, and 12% the baby rejected breastfeeding ([Table 2](#)).

**Table 3**

*Distribution of Adolescent Mothers' Information and Sources About Breastfeeding the Newborn*

Item		F	%
1- How to hold your baby for the first time	Direct embrace skin-to-skin	14	28.0
	Cuddle without too much skin contact, wrapped in a blanket	36	72.0
	Total	50	100.0
Did the nurses or midwives give you any information to help you with breastfeeding	No	23	46.0
	Yes	27	54.0
	Total	50	100.0
Did the nursing staff provide you with any assistance regarding the correct position of the child when breastfeeding?	No	24	48.0
	Yes	26	52.0
	Total	50	100.0
Did the nursing staff guide you or give you information on how to express milk manually?	No	32	64.0
	Yes	18	36.0
	Total	50	100.0
Did you breastfeed your child	No	18	36.0
	Yes	32	64.0
	Total	50	100.0
The type of breastfeeding you gave your baby	Normal	16	32.0
	Industrial	11	22.0
	Mixed	23	46.0
	Total	50	100.0
Decreased milk production	No	38	76.0
	Yes	12	24.0
	Total	50	100.0
Personal preference	No	46	92.0
	Yes	4	8.0
	Total	50	100.0
The baby rejects breast milk	No	44	88.0
	Yes	6	12.0
	Total	50	100.0

According to this table, all mothers know that breast milk is the most important nutritional source for the baby, most of the mothers know breastfeeding begins within the first hours after birth (64%), most of the mothers know her baby should be breastfed every two

hours (64%), the majority of the study sample know breast milk is better than formula milk (92%), most of the participants know breast milk reduces health problems (84%), most of the mothers know breast milk reduces the child's risk of intestinal diseases (66%),

majority of the study sample know breast milk is easy to digest (76%), more than half of the mothers know the formal milk causes health problems, such as Obesity (56%), majority of the mothers know breastfeeding

creates an emotional bond between the mother and the child (90%). More than half of the mothers know that breastfeeding reduces the possibility of the mother developing breast cancer (54%) ([Table 3](#)).

**Table 4**

*Distribution of Mothers' Knowledge About Breastfeeding*

Item	Yes		No		MS	Ass.
	F	%	F	%		
1. Did you know that breast milk is the most important nutritional source for the baby?	50	100	0	0	2.00	H
2_breastfeeding begins within the first hours after birth.	32	64.0	18	36.0	1.64	M
3_ Your baby should be breastfed every two hours.	32	64.0	18	36.0	1.64	M
4 Breast milk is better than formula milk.	46	92.0	4	8.0	1.92	H
5. Breast milk reduces health problems.	42	84.0	8	16.0	1.84	H
6_breast milk reduces the child's risk of intestinal diseases.	33	66.0	17	34.0	1.66	M
7 Breast milk is easy to digest.	38	76.0	12	24.0	1.76	H
8 Formal milk causes health problems, such as Obesity.	28	56.0	22	44.0	1.56	M
Breastfeeding creates an emotional bond between the mother and the child.	45	90.0	5	10.0	1.90	H
10_breastfeeding reduces the possibility of the mother developing breast cancer.	27	54.0	23	46.0	1.54	M
Over the mean score	1.746		Assessment		High	

f=frequency, %=percent, MS=Mean score, Ass. =assessment (1-1.33=L=Low) (1.34-1.67=M=Moderate) (1.68-2=H=High)

This finding shows that 64% of adolescent mothers had a high level of knowledge about breastfeeding. The

overall mean score and standard deviation were (1.746±0.196) ([Table 4](#)).

**Table 5**

*Distribution of Mothers' Knowledge About Breastfeeding According to Overall Mean Score*

Level of Knowledge	Frequency	Percent
Low (1-1.33)	2	4.0
Moderate (1.34-1.67)	16	32.0
High (1.68-2)	32	64.0
Total	50	100.0
Mean and standard deviation	1.746±0.196	

A significant statistical relationship exists between adolescents' knowledge and their age (p-value = 0.04). Additionally, there is a non-significant relationship

between mothers' education and their knowledge (p-value = 0.83) ([Table 5](#)).

**Table 6**

*Relationship Between Adolescents' Knowledge and Sociodemographic Characteristics*



Variables		Knowledge			Total	Chi-square
		Low	Moderate	High		
Age	13	1	5	6	12	Chi=24.7 P=0.04, Sig=S
	17	1	11	26	38	
	Total	2	16	32	50	
Education	Neither read nor write	1	2	10	13	Chi=4.274 P=0.83 Sig=NS
	Read and write	1	4	7	12	
	Primary school graduate	0	5	7	12	
	Intermediate graduate	0	4	7	11	
	Preparatory school graduate	0	1	1	2	
	Total	2	16	32	50	

P= p value, Sig= significant, HS= high significant, S=significant, NS= non- significant

A highly significant statistical relationship exists between adolescents' knowledge and their previous feeding experiences (p-value = 0.001). In contrast, no

significant relationship is found between mothers' knowledge and their number of pregnancies and deliveries (p-value > 0.05) (Tables 6 and 7).

**Table 7**

*Relationship Between Adolescents' Knowledge and Reproductive Characteristics*

Variables		Knowledge			Total	Chi-square
		Low	Moderate	High		
Number of pregnancies	1-3	2	16	31	49	Chi=0.574 P=0.751 Sig.=NS
	4-6	0	0	1	1	
	Total	2	16	32	50	
Number of deliveries	1-3	2	16	31	49	Chi=574 P=0.751 Sig.=NS
	4-6	0	0	1	1	
	Total	2	16	32	50	
Type of the previous feeding	Breastfeeding	2	8	3	13	Chi=17.83 P=0.001 Sig.=HS

## Discussion and Conclusion

### Part One: Demographic and Reproductive Characteristics of Mothers

Findings show that, according to age, 76% of adolescents' mothers. At ages 17-19, 26% of them were neither readers nor writers. Homemakers. These results agreed with numerous studies (Bowatte et al., 2015; Hussein et al., 2024; Mohammad, Jassim, et al., 2023). The majority of the study samples were from the socio-demographic Characteristics of the studied area (30.7%), specifically from the age group between 16 and 19 Years Old.

In the researcher's opinion, the young age of mothers was a positive factor, as they tend to have a greater desire to maintain and develop their information compared to older mothers.

In terms of the mother's profession, the report shows that most moms (28.7%) completed elementary school. These findings concur with a study by Kamil et al. (2023). In terms of the mother's profession, the report shows that most moms (28.7%) completed elementary school. These findings concurred with a study. This result aligns with studies that reveal most of the study sample consists of housewives (Ayed, 2014; M. Mohammad et al., 2024; Tiryag et al., 2022).

In the researcher's opinion, most women are married at a young age, as evidenced by the fact that all Mothers in the present study have at least one child. In the researcher's opinion, in Iraq, females who don't attend or complete school marry at an early age.

In terms of the husbands' occupations, 64.7% were unskilled laborers, and 22% had completed elementary

school. Studies back up this conclusion (Ayed, 2014; Zainel et al., 2022). It revealed that the study sample's dominant age is 26 years old.

In terms of maternal education, the most significant proportion of the study sample completed elementary school. This outcome is consistent with previous research (Kumar et al., 2015; Tiryag et al., 2023). According to their research, the bulk of the participants are recent elementary school graduates, which has an impact on moms' breastfeeding expertise.

This result is supported by Hala Saied et al. (2013), who noted that homemakers comprise the majority of study participants. Because homemakers can spend enough time with their children, nursing is one of their top priorities. According to the husband's educational background, the majority of men had only completed primary school. These findings are corroborated by M. A. Mohammad et al. (2024), who stated that primary school graduates make up the largest portion of husbands' educational backgrounds. According to the adolescent mothers, 98% had 1-3 pregnancies and 98% had 1-3 deliveries. The mean age of pregnancy was  $17.23 \pm 4.251$ , the mean age at marriage was  $14.940 \pm 1.391$ , and the mean age at first pregnancy was  $15.62 \pm 1.105$ . Additionally, 40% of them used industrial feeding during the previous feeding.

The majority of mothers are homemakers in terms of their occupation. Studies support this conclusion (Hala Saied et al., 2013; Jabbar et al., 2023), which states that homemakers comprise the majority of study participants. Since they can spend more time with their children, homemakers often prioritize breastfeeding as a result.

This result aligns with Dawood et al. (2023) and Marrone et al. (2008), who reported that most mothers gave birth naturally, indicating that mothers who did so were more likely to breastfeed than those who had a cesarean section. In terms of delivery location, the current survey shows that most moms give birth in a hospital. This outcome was accepted by Sriraman (2017), who said the largest proportion of mothers have had children.

In terms of socioeconomic standing, the vast majority of the research participants come from middle socioeconomic backgrounds. This outcome is corroborated by Jassim et al. (2023) and Keddem et al.

(2018), who claimed that a moderate socioeconomic status accounts for the majority of the study group.

According to the age of the children, the study results indicate that the highest percentage of children is aged  $\leq 5$  months. Concerning the child's gender, the results show that male infants have the highest percentage of mothers attending primary health care centers. This result aligns with studies by Mohammad, Al-Timary, et al. (2023) and Stordal (2023), which mention that the dominant gender is male among infants whose mothers attend primary health care centers.

### **Mothers' Information and Sources about Breastfeeding of the Newborn**

Regarding adolescents mothers 72% of them Cuddle without too much skin contact wrapped with a blanket, 54% take information from nurses or midwives to help them with breastfeeding, and 52% of nursing staff provide any assistance regarding the correct position of the child when breastfeeding, 36% nursing staff guide you or give you information on how to express milk manually, 64% breastfeed the child, 46% had the normal type of breastfeeding you gave your baby, 24% decreased milk production the reason of don't breastfeed, 8% personal preference, 12% baby reject breastfeeding.

To increase the duration of EBF by more than two months and decrease the number of adolescent mothers who abandoned this practice before six months by 48%, systematic counseling for adolescent mothers was started at the maternity hospital and continued for the first four months. Two studies (De Oliveira et al., 2014; Kullmann & Leader, 2021). The researcher found a correlation between the prenatal intention of adolescent mothers to breastfeed and the duration of breastfeeding; however, adolescents are less likely than adults to have considered infant feeding techniques before becoming pregnant, so that breastfeeding intention may offer a potential intervention opportunity. The researcher believes that these differences may be caused by the more educated mothers' better use of health services, which also enables them to provide better care for their infants, including breastfeeding.

### **Part II: Discussion of Mother's Knowledge about Breastfeeding**

According to the study's findings (Table 5), mothers' knowledge of breastfeeding is generally rated as being good. These findings suggest that the mothers



participating in this study have extensive nursing knowledge. This outcome is consistent with the research conducted by Mbada et al. (2013). She stated that mothers' knowledge of breastfeeding is often regarded favorably.

### **Discussion of the Relationship between Mothers' level of knowledge and socio-demographic characteristics**

A nonsignificant correlation has been found between the mother's nursing expertise and the results in Table 6. This outcome is consistent with Ayed (2014), who stated that there is no significant relationship between mothers' knowledge about breastfeeding.

Regarding adult mothers 80% of them Cuddle without too much skin contact warped with a blanket, 48% take information from nurses or midwives to help them with breastfeeding, and 40% of nursing staff provide you with any assistance regarding the correct position of the child when breastfeeding, 30% nursing staff guide you or give you information on how to express milk manually, 66% breastfeed the child, 46% had the normal type of breastfeeding you gave your baby, 10% decreased milk production the reason of don't breastfeed, 18% personal preference, 8% baby reject breastfeeding.

Regarding adolescent mothers, 72% of them Cuddle without their parents. Much skin contact wrapped with a blanket, 54% take information from nurses or midwives to help you with breastfeeding, 52% of nursing staff Provide you with any assistance regarding the correct position of the child when breastfeeding, 36% of nursing staff guide you or give you information On how to express milk manually, 64% breastfeed the child, 46% had The Normal type of breastfeeding you gave your baby, 24% decreased milk Production the reason for not breastfeeding, 8% personal preference, 12% Baby rejects breastfeeding, according to a study (Al Juaid et al., 2014), which reports that 70.6% of moms obtain breastfeeding information. The primary source of breastfeeding education is the family.

Additional challenges arise for working women who are unable to be at home all the time to nurse their infants. As a result, it's critical to expand the use of initiatives aimed at giving mothers more confidence and clarifying their misconceptions about how to express and store breast milk. Therefore, healthcare providers can offer educational courses to mothers in collaboration with healthcare settings and other agencies,

emphasizing the importance and benefits of breastfeeding for both babies and mothers.

### **Limitations**

This study has several limitations, including a small sample size, purposive sampling, a cross-sectional design, the absence of longitudinal data, and a potential risk of bias. Additionally, the study's results may be influenced by several confounding factors, including Socioeconomic Status, Cultural Beliefs and Practices, Educational Background, Age of the mother, and Previous Experience with Breastfeeding.

### **Conclusion**

There is a significant statistical correlation between adolescents' knowledge and their age, as well as a highly significant correlation between their knowledge and prior breastfeeding experiences. Sixty-four percent of the mothers of the adolescents had a high level of knowledge about breastfeeding. Future studies should consider the confounding factors that may affect the study's results and employ methods to control for them, such as randomization, blinding, and statistical analysis. Also, there is a need for interventional studies on breastfeeding mothers in Iraq, especially. Longitudinal studies or interventions targeting breastfeeding knowledge may be applied.

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### **Declaration of Interest**

The authors of this article declared no conflict of interest.

### **Ethical Considerations**

The study protocol adhered to the principles outlined in the Declaration of Helsinki, which provides guidelines for ethical research involving human participants. Ethical considerations in this study included the fact that participation was entirely optional. The study has been approved by the Ethical Committee at the Faculty of Nursing/ University of Baghdad (Institutional Review Board). Written informed consent was obtained from the mothers before the study commenced, and they had the right to refuse participation.

## Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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## Authors' Contributions

All authors equally contribute to this study.

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