



## Awareness of Teenage Mothers Regarding Care for the First Baby

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### Abstract

**Background:** Teenage mother awareness for the child care has long effects on a person's social, emotional and physical health. Nurse can raise teenage mother awareness regarding care for the first baby care. **Aim:** This study aimed to assess awareness of teenage mother for care the first baby. **Design:** A descriptive research design was applied in this study. **Sample:** A purposive sample included 286 teenage mothers. **Setting:** MCH in health unit south of Giza – Egypt. **Tool of data collection:** One tool included three parts, **1<sup>st</sup> part:** Socio-demographic characteristics of teenage mothers, **2<sup>nd</sup> part:** teenage mother's knowledge regarding care for the first baby, **3<sup>rd</sup> part:** teenage mother's reported practices. **Results:** 61.5% of teenage mothers had poor knowledge and 66.1 % of them had insufficient total practices toward their infant care. There were statistically significant teenage mothers' knowledge and teenage mothers' practice regarding their infant's care. **Conclusion:** less than two third of studied teenage mother had poor knowledge about care of the first baby, and two third of them had insufficient of total reported practice regarding care for the first baby. **Recommendation:** Applying health education programs for teenage mother focusing care of the first child.

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**Key words:** Awareness, Care of First Baby & Teenage Mothers.

### Introduction

A teenage mother is an adolescent or teenage female who age range between 13-19 years with a live baby. Teenage mothers are concern for public health globally, and the occurrence of teenage pregnancy and birth is a problem in many countries. Teenage motherhood is a global phenomenon affecting both developed and developing countries and constrains girls and young teenage mothers become pregnant and become teen parents at births to teens ages 15-19. Teenage pregnancy causes and serious health, social and economic consequences (*Mumah et al., 2020*).

The transition period of motherhood from two to four weeks after giving birth where the mother will adapt to her new role. After giving birth, common changes occur in the mother's life, including changes in roles, relationships, abilities and behavior. The changes require the mother's adaptation to her new role and this situation may be particularly challenging for teenage mothers, as face physical, mental, psychological and social challenges (*Uster et al., 2022*).



All over the world, teenage mother fertility rate is the number of births 1000 females aged 15 – 19 years; rates in girls under the age of 15 years are unstable because of low numbers and are not routinely collected. The fertility rate among Egypt teenagers fell to a historic low of 12.9 births /1000 in 2022. In Egypt, an estimated 21 million girls aged 15–19 years become pregnant and approximately, 12 million of them give birth. Decreased from 64.5 births per 1000 teenage mothers (15–19 years) in 2000 to 41.3 births per 1000 teenage mothers in 2023 (*Alzate et al., 2024*).

Teenage mothers had difficulty in taking care of their children. These difficulties contribute to inadequate parent-child interactions and diminished development. Teenage mothers are not ready to deal with motherhood. Teenage mothers want specific needs to know regarding the care of their infants and how to become an effective parent. Teenage mothers must devote their entire time and effort to infant care, which includes feeding, physical care, mental development, and protection from hazards (*Vijayakumar et al., 2021*).

The majority of teenage mothers have little knowledge and competence for childcare and many are not capable of providing their infants with basic needs due to their low socio-economic status. The teenage mothers require support on several issues as child care education, financial problems, and varying needs of their own and that of their children. Infants of teenage mothers are prone to low birth weight, prematurity, developmental disabilities, and poorer developmental outcomes than the infants of older mothers. Deficits in cognitive and social development in the children of teenage mothers may persist into adolescence (*Pamintuan et al., 2020*).

Caring for a first baby as a teenage mother presents its own set of challenges and opportunities. Teenage mothers often face additional pressure due to their age and lack of experience, but with support and guidance, teenage mother can still provide excellent care for their newborns. It's crucial for teenage mothers to seek out resources such as parenting classes, support groups, and access to healthcare services to ensure teenage mother have the knowledge and assistance teenage mother need. Building a strong support network of family, friends, and mentors can provide invaluable emotional support and practical assistance. This care includes feeding, diapering, sleeping, bathing, and safety (*Mattsson et al., 2024*).

An infant health depends upon factors includes the teenage mother's practice about their health care needs, the infant environment after birth, and availability of essential services as physical examination and receiving appropriate immunization. It also depends on proper nutrition and other nurturing care. Improved infant's care substantially improves survival (*Buckland et al., 2020*). Evidence suggests that essential infant care practices, for example, feeding, hygiene, and recognition of danger signs and illness is clearly associated with major causes of infant mortality. So, improved care practices for infant, postnatal contact with health providers and increased to care seeking for illness has demonstrated a significant reduction in infant mortality (*Campbell et al., 2021*).

Community Health Nurses (CHN) can help teenage mothers access essential resources as healthcare services, social assistance programs, childcare options, and parenting classes in their community. It's important to discuss contraception and family planning with teenage mothers to help them make informed decisions about future pregnancies and reproductive health. Nurses can empower teenage mothers by encouraging them to advocate for their own and their baby's needs within the healthcare system and their community. This can include helping them navigate healthcare appointments, understand their rights, and access appropriate services (*kamel et al., 2020*).



Nurses can educate teenage mothers about the importance of prenatal care, including regular check-ups, proper nutrition, and avoiding harmful substances like drugs and alcohol during pregnancy. Nurses can teach teenage mothers about newborn care essentials such as feeding, bathing, diapering, and safe sleep practices. Nurses can offer guidance on recognizing signs of illness or distress in the baby. Nurses can offer guidance on nurturing and bonding with the baby, understanding infant cues, and fostering positive parent-child interactions. Nurses can provide information on child development milestones and age-appropriate activities (*Mohammed, 2023*).

### Significance of the study

Teenagers aged 15–19 years in low- and middle-income countries (LMICs) had an estimated 21 million pregnancies each year, of which approximately 50% were unintended and which resulted in an estimated 12 million births. Data on childbirths among girls aged 10–14 are not widely available; limited available data from Angola, Bangladesh, Mozambique and Nigeria point to birth rates in this age group exceeding 10 births per 1000 girls as of 2020. Based on 2019 data, 55% of unintended pregnancies among teenage girls aged 15–19 years end in abortions, which are often unsafe in LMICs (*World Health Organization, 2019*).

In Egypt and other northern African countries and Arab countries teenage pregnancy is common 65 per 1000. Consequences of early pregnancy can include morbidity and mortality attributable low access skilled antenatal, childbirth and postnatal care as well as unsafe abortions. Teenage mothers lack knowledge and understanding of health and family planning. Early marriage often leads to a higher total number of life time births due to a longer period of exposure to the risk of pregnancy (*Maki, 2020*).

According to a demographic and health surveys (DHS) that done in Morocco, Egypt and Turkey, slightly more than 10 percent of teenage mothers age 15-19 are ever-married. The proportion of ever-married teenage mothers who have begun childbearing (or are pregnant with a first child) is 6.4 percent in Morocco, 9.4 percent in Egypt and 7.5 percent in Turkey. In all three countries the proportion of teenage mothers starting to have children increases rapidly after age of 17 years (*Saleh, 2022*).

### Aim of the study

This study aimed to assess awareness of teenage mothers regarding care for first baby through the following objective:

1. Assessing the teenage mother's knowledge about care of their child feeding and vaccination program.
2. Appraising the teenage mother's reported practice about breastfeeding of the child care and vaccination program.

### Research questions

1. What is the level of knowledge for teenage mother regarding care of the first baby?
2. What is the level of reported practices for teenage mother regarding care of the first baby?

### Research design:

A descriptive research design was applied to achieve the aim of the study.

### Study Setting:

This study was carried out at maternal and child health (MCH) in the health unit south of Giza- Giza – Egypt.

**Type of sample:**

A purposive sample was 286 teenage mothers that have service at MCH, in the health unit south of Giza- Giza – Egypt.

**Size of the sample:**

Total number of mothers attending to **MCH** in the previous year was 1000 mothers provide a simplified formula to calculate sample size).

$$n = \frac{N}{1 + N(e)^2}$$

$$1 + N(e)^2$$

*Where,*

N=total population

n=sample size

e= level of precision =0.05

$$n = \frac{1000}{1 + 1000(0.0025)} = 285.7$$

$$1 + 1000(0.0025)$$

Total number =286 mothers

**Tools for data collection:**

**Tool: A structured interviewing sheet:** was used in the study, it's developed by investigators after reviewing the national and international related literature and contains three parts:

**Part (I): Socio-demographic characteristics: It was contained about 6 items** as age, marital status, level of education ...etc.

**Part (II): Teenage mothers' knowledge regarding care for the first baby: It was contained about 4 sub-items as:**

**A-Teenage mother's knowledge about breast feeding for the first baby consisted of 16 close end questions** as importance of breastfeeding, prefer breast milk just to feed your baby for the first 6 months, think bottle feeding is dangerous for baby, time to start introducing foods to your baby after six months, exclusive breastfeeding mean breastfeeding for a year, ..... etc.

**B-Teenage mother's knowledge about vaccination for the first baby consisted of 18 close end questions** as vaccinations protect the child from infectious diseases, Vaccinations reduce child mortality, Vaccinations keep the baby healthy, Vaccinations protect children from complications, vaccination safe for the child, measles a disease controlled by mandatory vaccination, tuberculosis a disease controlled by mandatory vaccination ..... etc.

**Scoring system for knowledge items:**

Each statement was assigned score according to teenage mother's response were: complete correct was scored 2 grades, incomplete correct was scored 1 grade and incorrect or don't know was scored 0. Total score were 68 grades from 34 questions. The total score each item summed up and then converted into percent score **as the following:**

- Good knowledge ( $\geq 75\%$ ) =  $\geq 51$  grades, was considered high score.
- Average knowledge ( $50 - < 75\%$ ) =  $34 - < 52$  grades, was considered moderate score.
- Poor knowledge ( $< 50\%$ ) =  $< 34$  grades, was considered poor.

**Part (III): Teenage mother's reported practices, it was contained 7 sub-items as:**

**A- Teenage mother's reported practices about care the first baby included 7 closed end questions as:** the umbilical cord is cleaned, umbilical cord cleaning, Preparation of the necessary tools for bathing the baby, ..... etc.

**B- Teenage mother's reported practices about breast feeding and bottle feeding for the first baby included 39 closed end questions as:** breast milk to a newborn immediately within one hour (early start) after birth, determine that my baby is getting enough milk, sit comfortably while breast feeding, look directly into my baby's eyes and talk to him, burping is carried out after each feeding, wash each breast with warm water before breast feeding..... etc.

**C-Teenage mother's reported practices about vaccination of the first baby included 5 closed end questions as:** Give the child antipyretic and painkiller such as paracetamol according to the dose prescribed by the doctor, you can use lukewarm compresses to reduce swelling... etc.

**Scoring system:**

Each statement was assigned score according to teenage mother's response were "Done", "Not Done", and were scored 2, and 1. (done 2, not done 1), respectively. Total score were 102 grades for 51 items. The scores of items summed up and then converted into percentage score **as the following:**

- ( $> 60$ ) was considered satisfactory =  $> 61$  grades.
- ( $\leq 60$ ) was considered unsatisfactory =  $\leq 61$  grades.

**Operational Item:**

It was included preparatory phase, content validity and reliability, pilot study and field work.

**Preparatory phase:**

Prepare the study tools based on related literature review and develop the study tool and test its content validity and reliability.

**Pilot study:**

A pilot study conducted on 10 % of the teenage mother equal 29 teenage mothers under study to assess the feasibility, practicability, clarity and objectivity of the tools. Based on the results, no modification was done. Teenage mother in the pilot study were included in the main study sample because no modifications were done.

**Content validity:**

Validity was ascertained by a panel of experts in branch of community health nursing, who was review the tool for the format, layout, consistency, accuracy, and relevance.

**Tool Reliability:**

Reliability was tested statistically using the appropriate statistical tests to assure that the tools are reliable before data collection. Answers from the repeated testing were compared Test- re- test reliability was 0.82 for knowledge, and Cronbach's Alpha reliability was 0.890 for practice.

**Field work:**

- An official letter issued from the dean of Faculty of Nursing Helwan University, and teenage mothers, at maternal and child health (MCH) in the health unit south of Giza- Giza–Egypt. Including the aim of the study to obtain permission after establishing a trustful relationship, each subject interviewed individually by the investigators to explain the study purpose.
- Data collected within 6 months from first of July until end of December 2023 two days /week (Tuesday- Wednesday), from 9am - 12pm, till the needed sample completed, interview of teenage mothers, informed consent obtained from teenage mothers after the investigators introduce herself for each teenage mother, then explain the purpose of the study to assess knowledge, and reported practice of teenage mothers about care for first baby. Study collected through structure face to face interview and the entire tool filled by the investigators.
- The investigators utilize one tool, was need 20 -30 minutes and meeting the teenage mothers two days per week (Tuesday- Wednesday) from 9am - 12pm.
- The investigators taken 12 teenage mothers every two days each week consists about 48 teenage mothers per month, total number of teenage mothers = 286 teenage mothers.

**Ethical Considerations:**

The research approval was obtained from the Scientific Research Ethical Committee in the faculty of nursing, Helwan University before starting the study, The investigators was clarified the objective and aim of the study to teenage mothers included in the study, The investigators assured anonymity and confidentiality of subjects' data. Teenage mother informed that they are allowed to choose to participate or not in the study and that they have the right to withdraw from the study at any time.

**III- Administrative Item:**

An official Permission was obtained from Dean of Faculty of Nursing Helwan University and official Permission from teenage mother, in maternal and child health (MCH) in the health unit south of Giza- Giza – Egypt in which the study was conducted. This letter included a permission to collect the necessary data and explain the purpose and nature of the study.

**IV- Statistical Item:**

The collected data from the studied sample was revised, coded and entered using personal computer (PC). Computerized data entry and statistically analyzed using SPSS program (Statistical Package for Social Science) version 24.

Data were presented using descriptive statistics in the form of frequencies and relative percentages. Chi square test (X<sup>2</sup>) was used to calculate difference between qualitative variables through this equation:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where:

Σ=sum      O= observed value      E= expected      P=.0001

**Degrees of Significance of the results were:**

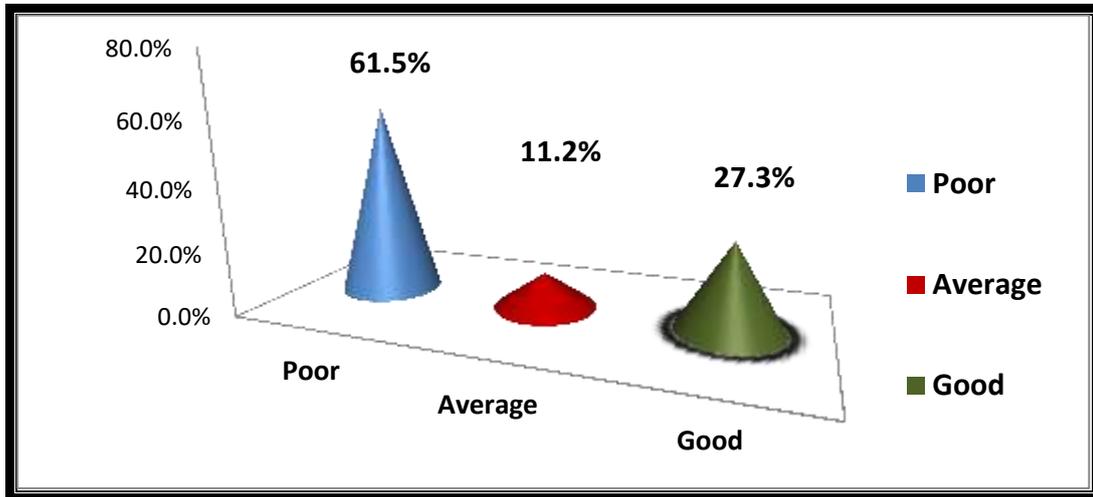
- Non-Significant (NS) if p > 0.05.
- Significant (S) if p < 0.05.
- High Significant (HS) if p < 0.01.

**Result:**

**Table (1):** Frequency Distribution of Demographic Characteristics for Teenage Mother (N=286).

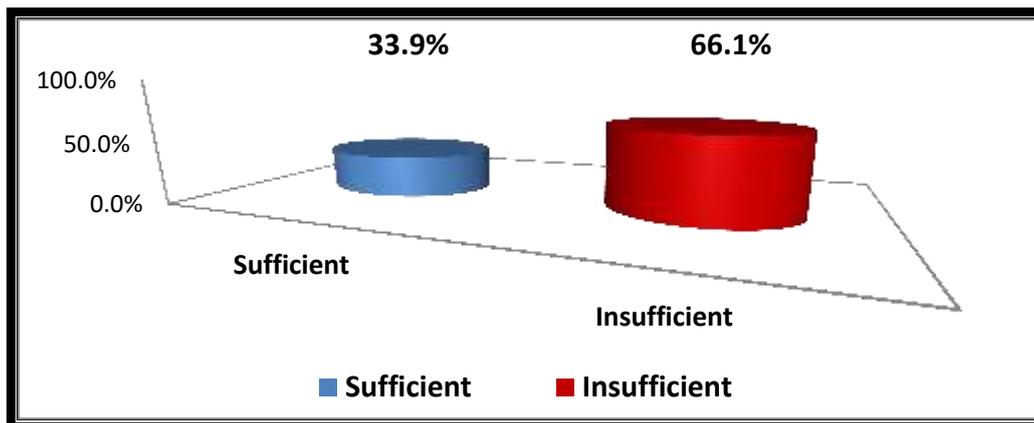
Demographic data	The studied Mothers	
	No.	%
<b>Age:</b>		
12 - < 14	40	14
≥ 14- <16	90	31.5
≥ 16- < 18	156	54.5
Mean ± SD 17.7 ± 1.7		
<b>Marital status</b>		
Married	280	97.9
Widow	4	1.4
Absolute	2	0.7
<b>Level of education</b>		
Reading and writing	10	3.5
Primary or Basic	6	2.1
Technical or secondary diploma	205	71.7
Academic	65	22.7
<b>Work</b>		
Worked	66	23.1
Housewife	220	76.9
<b>Income</b>		
Not enough	193	67.5
Enough and not save	50	17.5
Enough and save	43	15

Table (1): shows that, 54.5% of studied teenage mother their age was  $\geq 16$ - < 18 years, the Mean  $\pm$  SD of age of them was  $17.7 \pm 1.7$  years. While, 97.9 % of them were married. Also, 71.7 % of them were technical or secondary diploma and 76.9% of teenage mother are not working. Moreover, 67.5 % of them income is not enough.



**Figure (1):** Percentage Distribution of the Studied Teenage Mother’s Total Knowledge Regarding Care of First Baby (N=286).

Fig (1): Shows that, 61.5% of studied teenage mother had poor knowledge about care of the first baby. Also, 11.2 % of them had average knowledge about care of the first baby. While, 27.3 % of them had good knowledge about care of the first baby.



**Figure (2):** Percentage Distribution of Total Reported Practice and level among Studied Teenage Mothers regarding Care for the First Baby (N=286).

**Fig (2): Shows that,** 33.9 % of studied teenage mother had sufficient of total reported practice regarding care for the first baby. While, 66.1 % of them had insufficient of total reported practice regarding care for the first baby.

**Table (2):** Relations between the Studied Teenage Mothers Total Knowledge and their Socio-demographic data. (N= 286).

Socio demographic data	Knowledge of the Studied Teenage Mothers					
	Poor (176)		Average (32)		Good (78)	
	No.	%	No.	%	No.	%
<b>Age:</b>						
- 12 - <14 (40)	40	14	0	0	0	0
- ≥14- <16 (90)	90	31.5	0	0	0	0
- ≥ 16- < 18 (156)	46	16.1	32	11.2	78	27.3
$\chi^2$	148.958					
P value	0.000*					
<b>Marital status</b>						
- Married (280)	176	61.5	32	11.2	72	25.2
- Widow (4)	0	0	0	0	4	1.4
$\chi^2$	16.343					
P value	0.003					
<b>Level of education</b>						
- Reading and writing (10)	10	3.5	0	0	0	0
- Primary or Basic (6)	6	2.1	0	0	0	0
- Technical or secondary diploma (205)	159	55.6	32	11.2	14	4.9
- Academic (65)	1	0.3	64	22.4	0	0
$\chi^2$	219.629					
P value	0.000*					
<b>Work</b>						
- Worked (66)	0	0	0	0	66	23.1
- Housewife (220)	176	61.5	32	11.2	12	4.2
$\chi^2$	228.800					
P value	0.000*					

Place of residence							
- Urban	(32)	0	0	0	0	32	11.2
- Rural	(254)	176	61.1	32	11.2	46	16.1
$\chi^2$		96.084					
P value		0.000*					
Income							
- Not enough	(193)	176	61.5	17	5.9	0	0
- Enough and not save	(50)	0	0	15	5.2	35	12.2
- Enough and save	(43)	0	0	0	0	43	15
$\chi^2$		275.910					
P value		0.000*					

\* Significant < 0.05

\*\* High significant P= < 0.01

p .000\*\*

**Table (2): Shows that,** there was highly statistically significant relation between studied teenage mother’s age, place of resident, occupation, and their total knowledge, where (P = < .0001).

### Discussion:

Teenage mothers need extra guidance, education, and support, as well as acceptance and reassurance. Teenage mother specific need and want to know regarding how to care for their infant and how to become an effective parent and addition the educational program is therefore particularly important in providing information to enhance the mother knowledge and practices and health promotion to modify practices increase skills change attitudes, increase knowledge and healthcare practices (*Boateng et al., 2023*).

Infant health depends upon various factors, including infant care practices such as feeding, personal hygiene as eye care, bathing, and diaper care, immunization, safety promotion recognition of danger signs and illness which are clearly associated with major mortality. Proper maternal infant care practices during the first year of life are very important for proper growth and development, maintain a healthy life for infant's and decrease the liability of morbidity and mortality (*SmithBattle & Phengnum, 2023*). Community health nurses play important roles in promoting and maintaining the health of teenage mothers and their infants through understanding the local knowledge and care practices related infancy period is very important to improve their interventions of infants' health promotion and maintenance proper infant care with the aim of reducing infant morbidity and mortality (*Dustmann et al., 2023*).

Regarding to socio-demographic characteristics of the studied teenage mother. The present study findings related that mean age of teenage mother was Mean  $\pm$  SD 17.7  $\pm$  1.7 years. This result is similar to a study conducted by **Nurbaeti et al., (2023)** who conducted a study in West Java, Indonesia about “Association between Islamic religiosity, social support,



marriage satisfaction, and postpartum depression in teenage mothers in West Java, Indonesia: A cross-sectional study". They found that, the mean age of studied sample was  $17.50 \pm 3.3$  years.

Concerning the level of education of studied teenage mother, the current study result revealed that, more than two third of the studied teenage mother had technical or secondary diploma. This result in the same line with **Anima & Tampah-Naah, (2023)** who carried out a study conducted in Ghana about " Availability of assets and livelihood strategies of school dropout teenage mothers in Adaklu District, Ghana ", they found that 76.3 % of studied sample had technical or secondary diploma. From the investigators point of view, teenage mothers may face challenges in continuing their education due to the responsibilities of parenthood, lack of support systems, or limited access to childcare facilities. This can lead them to option for shorter, more practical educational routes like technical or secondary diplomas.

Regarding the studied teenage mother's occupation, the current study revealed that, more than two third of studied teenage mother was housewife. This finding was in accordance with **Kareem et al., (2023)** who conducted a study in Nigeria about " Prevalence, Trends, and Factors Associated with Teen Motherhood in Nigeria: An Analysis of the 2008–2018 Nigeria Demographic and Health Surveys " they found that, the 73.6 % of studied samples was housewife. From the investigators point of view, in many cultures and societies, there have been traditional gender roles that dictate women's primary roles as homemakers and caregivers. Teenage pregnancy, especially in the past, often led to societal pressure for young mothers to focus on caring for their children and managing household responsibilities rather than pursuing education or employment outside the home.

Concerning the place of residence of studied teenage mother, the current study result revealed that, majority of studied teenage mother was live in rural area. This result in the same line with **Akter et al., (2022)** who carried out a study conducted in Bangladesh about " Teenage girls' interpersonal communication with mothers after experiencing menarche in Bangladesh., they found that 82.5 % of studied sample had live in rural area. From the investigators point of view, rural communities tend to be tight-knit, with residents often knowing and supporting one another. This strong sense of community can lead to greater social connections, support networks, and a feeling of belonging.

Concerning the marital status of studied teenage mother, the current study result revealed that, most of studied teenage mother were married. This result in the same line with **Battle et al., (2024)** who carried out a study conducted in Karachi about " Untangling risky discourse with evidence: A scoping review of outcomes for teen mothers' offspring ", they found that 93.5 % of studied sample had married. From the investigators point of view, many people seek companionship and emotional support as they age. Marriage can provide a stable and enduring relationship that fulfills these needs.

Regarding the family income of studied teenage mother, the present study indicated that more than two third of studied teenage mother was not enough for monthly income. These results agree with **Stevens et al., (2024)** who conducted a study in Indonesia, studied about " Efficacy of Behavioral Economic Nudges to Assist Teen Mothers: The Healthy Adolescent Transitions Randomized Controlled Trial ", they found that, 72.3 % of the studied sample was not enough for monthly income. From the investigators point of view, Childcare expenses can consume a significant portion of a teenage mother's income. Without access to affordable childcare options, teenage mothers may struggle to work full-time or pursue higher-paying employment opportunities.



**The following paragraphs, answered research question number Q1: What is the level of knowledge for teenage mother regarding care of first baby?**

Regarding studied teenage mothers' total knowledge, the current study revealed that, less than two third of them had poor knowledge, less than quarter had average knowledge and more than quarter of them had good knowledge, this result agrees with **Amolo et al., (2024)** who conducted a study in Cebu about ““If I Stop Now What Will Happen Later?”: The Lived Experiences of Teenage Moms as Students and Mothers in Cebu City during the Pandemic.”, they found that, 31.5 % of the parents had good total knowledge. Also, 22.5 % had poor knowledge and 54.0 % of them had average knowledge. From the investigators point of view, knowledge about baby care practices such as feeding, bathing, diapering, and soothing techniques is essential for ensuring the health and well-being of the infant. Teenage mothers need to understand how to meet their baby's basic needs and provide a safe and nurturing environment for their development.

**The following paragraphs, answered research question number Q2: What is the level of reported practices for teenage mother regarding care of first baby?**

Regarding to relation between studied teenage mothers' socio demographic characteristics and their total knowledge, the current study revealed a highly statistically significant between studied teenage mothers' age, educational levels occupation and their total knowledge scores. This result agrees with the study done by **Aizer et al., (2022)** who conducted a study in British about “Grandparents, moms, or dads? Why children of teen mothers do worse in life”, they found that, a statistically significant relation between samples' age, level of education and occupation, and their total knowledge scores. From the investigators point of view, teenage mothers may lack support from family members, partners, or other caregivers, which can make it challenging to meet the demands of baby care. Without assistance or encouragement from others, teenage mothers may feel overwhelmed or isolated, leading to a decrease in their ability or motivation to provide consistent care for their babies.

## **Conclusion**

**Based on the results of the present study and research question the following conclusion includes:**

Less than two third of studied teenage mother had poor knowledge about care of the first baby, Also, more than quarter of them had good knowledge about care of the first baby. While, one third of studied teenage mother had sufficient of total reported practice regarding care for the first baby, and two third of them had insufficient of total reported practice regarding care for the first baby.

## **Recommendations**

**In the light of the result of this study, the following recommendations were suggested:**

1. Provide health education program for teenage mother about care of the first baby.
2. Design booklets about care of the first baby which include all information about practices for care of the first baby.
3. Design posters and put in maternal and child health care setting uses that would help teenage mother to improve' knowledge, and practice of care of the first baby.
4. Encourage teenage mother to attained group discussion regarding care of the first baby to exchange knowledge, and practice under observation from community health nurse.

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