Assessment of knowledge and practice of mothers regarding breastfeeding and contraception in the postpartum period in primary care centers, King Abdulaziz Medical City, Riyadh, Saudi Arabia

Aida AlDughaither (1)
Hadeel AlMutairi (2)

(1) JA, Assistant Professor Family Medicine, Department of Family Medicine and Primary Health Care, King Abdul-Aziz Medical city, Ministry of National Guard.
College of Medicine, King Saud Bin Abdul-Aziz University for Health sciences.
Riyadh, Kingdom of Saudi Arabia
(2) Department of Family Medicine and Primary Health Care, King Abdul-Aziz Medical city, Ministry of National Guard , Riyadh, Kingdom of Saudi Arabia.

Corresponding author:
Hadeel AlMutairi
Department of Family Medicine and Primary Health Care,
King Abdul-Aziz Medical city, Ministry of National Guard , Riyadh, Kingdom of Saudi Arabia
Email: hadeel646@gmail.com

Received: August 2020; Accepted:September 2020; Published: October 1, 2020.
Citation: Aida AlDughaither, Hadeel AlMutairi. Assessment of knowledge and practice of mothers regarding breastfeeding and contraception in the postpartum period in primary care centers, King Abdulaziz Medical City, Riyadh, Saudi Arabia. World Family Medicine. 2020; 18(10): 41-54 DOI: 10.5742MEWFM.2020.93873

Abstract

Introduction: Women's health is of particular concern due to reproduction which affects their health. The Saudi community has changed recently in regard to women's rights and education. Those changes are expected to have a great impact on breastfeeding practice and contraception use.

Objectives: To assess knowledge and practice of breastfeeding and contraception for post-partum women.

Methods: Questionnaire based cross-sectional study for postpartum women in 3 primary health care centers, Riyadh, Saudi Arabia.

Results: 382 participants were included. Only 12.8% were exclusively breastfeeding their babies, while others were on mixed feeding (45%) or formula milk alone (42.2%). The most common barrier against breastfeeding was insufficiency of breastmilk in 51.8% of mothers. Women with three or less children were able to breastfeed their babies more than women with more than three children, (P-value=0.012). Vaginal delivery was significantly associated with a higher percentage of breastfeeding than C-section, (P-value=0.045). Almost half of the participants (49%) were using contraception; 45% of them chose their contraception based on their physicians' recommendations, 42.8% were using combined oral contraceptive pills. More than half the participants (67.8%) had good knowledge about breastfeeding and contraception. Older age was significantly related to higher knowledge; 75% of women who were 30 years and above had good knowledge (P-value=0.003). Women with three children or more (76.7%) have better knowledge than those with less than three children (P-value=0.01). The majority of mothers who received antenatal clinical advice about breastfeeding and contraception (72%) had better knowledge, (P-value=0.003).

Conclusion :The prevalence of exclusive breastfeeding was low (12.8%) despite the good knowledge in 67.8% of the participants. Around half of the participants were using contraception; the most common method was combined oral contraceptive pills (42.8%). Higher knowledge about breastfeeding and contraception were found with older age, having more than 3 children and receiving antenatal clinical advice.

Key words: knowledge, practice, breastfeeding, contraception, postpartum, Saudi Arabia

Introduction

There are some biological differences between men and women that lead to differences in their health status. Women's health is of a particular concern due to their reproductive role which has great impact on their health and wellbeing (1). Contraception is defined as: "the prevention of pregnancy by interfering with the normal process of ovulation, fertilization, and implantation" (2). It has been reported that global contraceptive use is about 48% (3). The use of contraception has several advantages on both women and children as it prevents unintended pregnancies and reduces the occurrence of high risk pregnancies especially for women in older age groups. It has been found that contraception reduces the need for unsafe abortions (4). There are several contraceptive methods that are used currently; for example, combined oral contraceptive pills, implants, intrauterine devices, and female or male condoms (4,5).

With the availability of various contraceptive methods, the individual choice of each method is different. The choice depends on multiple factors: the effectiveness of the method, related side effects, the cost and the availability of the contraceptive method as well as patient's preference (5). The most effective reversible methods according to the Centers of Disease Control and Prevention (CDC) are the implants and the intrauterine devices, which have a rate of 1 unintended pregnancy in every 100 women in a year. Secondary in effectiveness are the combined injectable contraceptives, oral pills, patches, the ring and the diaphragm. These methods have a rate of 6-12 unintended pregnancies in every 100 women in a year. The least effective are male and female condoms, the withdrawal method, the sponge, the fertility-awareness based methods, and spermicide. These methods have a rate of 18 or more unintended pregnancies in 100 women in a year(6). In addition, some types contraceptive methods have more benefits than for contraception use only; condoms are an example. Females and males who are seeking contraceptive advice should always know the importance of condom use in the prevention of sexually transmitted disease including HIV(5).

Breastfeeding benefits for both mothers and children are well proven. For child health, breastfeeding reduces child morbidity and mortality rates. It also contributes in protecting infants from different infections and helps in faster recovery of infants after sickness(7). For women's health, breastfeeding contributes in reducing weight after delivery, lowering the chance of developing anemia and decreases the risk of postpartum depression (8). In addition, for later life; breastfeeding helps to reduce the risk of ovarian and breast cancer. It is advised as per updated WHO guidelines that the child's nutrition for the first six months of age depends on exclusive breastfeeding, then continuing breastfeeding with the addition of suitable complementary foods until 2 years of age (7). Breastmilk contains all the nutrients that the infants need for the first months, then after six months it provides the child with about more than half of the nutritional needs (7). Feeding patterns are defined according to the WHO criteria as follows:

Exclusive breast feeding: infants who received only breast milk without any additional food, formula, liquids, or even water, with the exception of oral rehydration solution, drops or syrups consisting of vitamins, minerals supplements or medicines.

Bottle-feeding: infants who did not breastfeed and received only milk formula since birth (9,10).

Internationally a study conducted in Italy found that 57% of mothers at time of discharge after birth were exclusively breastfeeding their children(11). This number declined after 6 months to reach 5.5% (11). Also, a cross sectional study conducted in India, showed low levels of exclusive breastfeeding in postnatal mothers (12). Hong Jiang et al study found that the practice of breastfeeding of first-time mothers in Shanghai, China is affected directly by the awareness of mothers and their knowledge about WHO guidelines; as the awareness increases the intention and duration of breastfeeding will increase (13). On the other hand, there was a gap between the awareness of contraception and the compliance of child bearing age women in the Ambareen Khan et al study conducted in Karachi City, Pakistan (14). The most important reason for not using contraception was the fear of side effects (14). Similar results were found in another study conducted in India (15).

Recently the Saudi community has changed rapidly in regard to women's rights, education, employment and their social role and participation. Those changes are expected to have greater impact on breast feeding practice and contraception use. In this study we assessed the knowledge and practice of postpartum mothers regarding exclusive breast feeding and their use of contraceptive methods and to explore different reasons for mother's feeding practices and contraception use. We aimed to develop appropriate measures to improve knowledge and practice of mothers toward breast feeding and proper contraception use.

Methodology

This is a cross-sectional study for postpartum women in primary care centers, Ministry of National Guard, Riyadh, Saudi Arabia. It was questionnaire based. The study was conducted at 3 primary health care centers at King Abdul-Aziz Medical city in Riyadh. The data was collected in the outpatient well-baby and post-partum clinics of each center. Health Care sSpecialty Centre (HCSC), King Abdul-Aziz City Housing (Iskan clinic), and National Guard Comprehensive Specialized Clinic (NGCSC) serving a population of around 91,300 females in the child bearing age group from 15-45 years. We included all postpartum women who had follow up in the primary care centers postpartum clinic that is usually 6 weeks after delivery, and postpartum women who attended well baby clinic with their babies either at 2 months or 4 months of the baby's age. On the other hand, postpartum women who

did not agree to participate were excluded. The updated definition of exclusive breast feeding by WHO was used for this study (9,10).

The sample size was calculated using OpenEpi version 3, epidemiologic calculator based on the 28.5% prevalence of contraception used among women found as per the 2016 Saudi Arabia demographic survey (16). Using a 95% confidence interval and 5% margin of error, the calculated minimum sample size was estimated to be 313 and this was adjusted to 380 to compensate for incomplete questionnaires.

Convenience sampling technique was used and data was collected on assigned clinic days as per clinic schedule for postpartum and well-baby clinics per week for each center. Each family medicine center was covered separately until the required number of questionnaires were collected. The sample size needed was 380 participants and that was taken from the three centers proportionately.

This study was approved by King Abdullah International Medical Research Center, Riyadh. A self-administered questionnaire was distributed among participants attending either postpartum clinic or well-baby clinic for 2 and 4 months of baby age. The questionnaire was delivered to the patients and was collected by the nursing staff assigned in the screening room of the clinics.

The questionnaire was prepared with reference to previous studies in the literature. The content validity of the tool was ensured by consulting experts both in family medicine and obstetrics/gynecology specialty. It was initially written in English, then translated into Arabic and then back to English for validation. The completed questionnaire was checked and pretested for clarity and suitability in a small pilot study of ten participants and then necessary corrections were made. The questionnaire included 24 questions. The questionnaire consisted of 3 parts:

Part 1: included 7 questions about demographics characteristics (age, gender, level of education and income), 4 questions about last pregnancy and delivery, and 2 questions about postpartum education for breast feeding and or contraception. Part 2: included 4 questions to assess knowledge and practice of postpartum mothers toward breastfeeding. Part 3: included 7 questions about knowledge and practice of mothers toward contraception. The time needed to fill this questionnaire was around 10 minutes.

Statistical Analysis:
All data were coded, entered and analyzed using Statistical Package for the Social Sciences software, version 20. Continuous variables were reported in terms of means and standard deviation, while categorical variables were described using frequencies and percentages. Analytic statistics were carried out using the Chi-square (x2) test for associations and/or the difference between 2 categorical variables. T- test and ANOVA were used for mean comparisons. A P-value ≤ 0.05 was considered statistically significant. Any incomplete questionnaire was removed from data analysis.

Results

Baseline demographics of the participants :
The socio-demographic characteristics of the studied participants are shown in Table 1. The study included 382 women, (56.6%) were 30 years and above with a mean age of 31±6. Most of our participants had a university degree and higher education (56.6%), with 2.6% illiteracy. Almost two thirds of them (71%) were housewives. For participants' husbands, 56.7% were 35 years and above with a mean age of 36±7. Most husbands (59.8%) were school educated with no illiteracy. The majority of our participants (65%) have less than 3 children and 66.8% of the families in our study have an income of less than 10,000 Saudi Riyals.

Last pregnancy and delivery:
The details of participant's last pregnancy and delivery are shown in Table 2. Complications in last pregnancy were found in 19% of participants; 32% of the complications were gestational diabetes mellitus. The remaining complications are shown in Figure 1.

Of the deliveries, 72% of the participants had vaginal delivery, 88% of them had an uncomplicated mode of delivery. For the complicated delivery, postpartum hemorrhage was the most common in 28% of the patients. The remaining delivery complications are shown in Figure 2. Moreover, during their pregnancies 80% of the participants received antenatal advice about breastfeeding. Conversely , only 54% received advice about contraception use.

Breastfeeding knowledge and practice:
A significant percentage of mothers were using mixed milk (breast and formula milk) to feed their babies (45%), 42.2% were using formula milk alone, and only 12.8% were breastfeeding exclusively. Among women who used mixed feeding, 94.7% believed that breast milk alone is better, and 91.1% of women using formula milk alone believed that breastfeeding the baby exclusively is better. Many barriers were against exclusive breastfeeding as shown in Figure 3. The commonest barrier was the concerns about the insufficiency of breast milk reported by 51.8% of participants. Another 10.3% complained of conflicts between their work times and breastfeeding, and 8% had no time to breastfeed their babies. In our study, there was a significant association between the number of children and type of feeding. We found women with 3 or less children breastfed their children more than women with more than 3 children (p-value=0.012). Additionally, vaginal delivery was significantly associated with higher percentage of breastfeeding than C-section (p-value=0.045).

Respondents' knowledge was evaluated using a list of 19 general facts about breastfeeding (Figure 4). No respondent answered all questions correctly. The highest number of correct answers was 18, while the lowest was 0. Twenty-one answered 18 questions correctly (5.5%),

and 61 answered 17 questions correctly (16%). The mean number of correct answers was 13.

Contraception:

The next point in our study was contraception; 60.1% of the women used contraception before their last pregnancy, with most (42.8%) using combined oral contraceptive pills. The rest were using other options (Figure 4). Almost half the participant (49%) were currently using contraception; 45% of the contraceptive users chose their contraception method based on their physician's recommendation, 31% chose based on previous experience, while 16% chose based on advice from a friend or relative (Figure 5). However the commonest cause for not using contraception was the desire for more children, reported by 28.9% of the respondents. Also, 18.9% believed that breastfeeding is enough as a contraceptive method while 12.2% said their husbands disagreed about using contraception. Respondents' knowledge about contraception was evaluated using eight general questions about contraception. Surprisingly, 60% believed that Intrauterine devices cannot be used during breastfeeding and 76% thought that progestin only pills can also not be used. Additionally, 61.8%, 76.7% thought that withdrawal and condoms, respectively, cannot be used during breastfeeding. However, 89.5% found combined contraceptive pills not compatible with breastfeeding. Moreover, 65.7% of our respondents did not know the right time to start contraception after birth. These results show the lack of knowledge about appropriate contraception use.

The association between their knowledge and several factors:

Our respondents' knowledge was measured using 28 basic general questions related to breastfeeding and contraception, as mentioned above. The knowledge score was calculated by counting each correct answer as 1 point and other answers as 0 points. The highest grade among our respondents was 23 out of 28, with a mean of 15. We classified the results into two categories, poor knowledge (lower than 15) and good knowledge (15 and more). In this survey, 32.2% of patients had poor knowledge and 67.8% good knowledge.

We made comparisons between several factors and the knowledge score. Firstly, older age was significantly related to higher knowledge; 60% of those younger than 30 had good knowledge and 75% of those 30 and older had good knowledge (p-value = 0.003). The mean knowledge score was 15 for women younger than 30 and 17 for women aged 30 and older. The husband's age was also related with higher knowledge: 62.7% of those younger than 35 years have good knowledge and 73.4% aged 35 and older have good knowledge (p-value = 0.028). Moreover, women with three or more children have better knowledge than those with fewer than three (p-value = 0.01): 76.7% of women with three or more children had good knowledge but 60% of women with fewer than three children had good knowledge. Additionally, antenatal advice in clinics related significantly to higher knowledge: about 72% of those who received antenatal advice about breastfeeding had good knowledge compared with about 53% of those who did not (P-value = 0.003). Additionally, exclusive breastfeeding was significantly associated with higher knowledge (84%) compared with exclusive formula milk use (64%; p-value = 0.046). Moreover, contraception use was significantly related to higher knowledge; 75% of women currently using contraception have good knowledge, whereas 63% of women who are not have poor knowledge (p-value = 0.23). Other assessed factors are listed in Table 4.

Discussion

Breastfeeding:

Our study showed that only 12.8% of mothers breastfed exclusively; this correlates with the local low prevalence of exclusive breastfeeding. AlSulaimani's recent study in Taif City, in western region of Saudi Arabia found a low prevalence of exclusive breastfeeding (16.3%), which is similar to our finding (17). Another study, which was conducted in Makkah, a city located in the western region of Saudi Arabia, showed a similar low prevalence (18.5%)(18). An even lower prevalence rate, 7.3%, was found in another study conducted in Abha, a city located in the southern region of Saudi Arabia (19). However, much higher percentages have been found in other local studies (20,21). As the majority of our participants were housewives (71%), maternal employment was not a barrier in this study. This difference in rates of exclusive breast feeding among local studies may be explained by the finding of a systematic review for 17 cross-sectional Saudi studies about breastfeeding, which concluded that it was difficult to determine the prevalence of exclusive breastfeeding depending on the included studies because of differences in the definitions of "exclusive breastfeeding" used and the nature of study design (22).

Internationally, a study conducted in Spain concluded that the exclusive breastfeeding rate is 25.4%(23). Another study conducted in India showed a prevalence of 62% (24). Similarly, exclusive breastfeeding of 58% was found in Bhutan (25). Additionally, studies conducted in Austria, Luxemburg and the Netherlands found the rates of exclusive breastfeeding to be 46%, 54% and 37% respectively (19). Our result is much lower than the results of these studies, which may be explained by differences in socioeconomic status, education level and cultural beliefs and the rapid modernization move in the Saudi community especially in regard to women's role.

In our population we found a correlation between vaginal delivery and breastfeeding. A 2016 study by Fehintola et al. found the same correlation. In fact, they found that women who delivered by C-section are 70% less likely to breastfeed exclusively (26). A similar correlation was found in another study in Canada (27). Additionally, we found that mothers in our population with three or fewer children are more likely to practice breastfeeding. This result contradicts several studies that found that lower number of children is associated with failure to practice exclusive breastfeeding (18, 28).

Table 1: Baseline demographics of the participants

Demographical Data		*N*	*%*
Age	Below 30 years	150	43.4%
	30 years and above	196	56.6%
	Mean ± SD	31±6	
	Range	19-50	
Education	Illiterate	10	2.6%
	School level	156	40.8%
	University Degree	215	56.3%
Career	Housewife	268	70.9%
	Employee	110	28.8%
Number of children	Up to 3 children	247	64.8%
	More than 3 children	134	35.2%
Husband's Age	Below 35 years	158	43.3%
	35 years and above	207	56.7%
	Mean ± SD	36±7	
	Range	23-73	
Husband's Education	School level	226	59.8%
	University degree and above	152	40.2%
Family income	Up to 10,000	250	66.8%
	More than 10,000	124	33.2%

Table 2: Last pregnancy and delivery.

The questions		*N*	*%*
Regular antenatal follow up	Yes	360	95.2%
	No	18	4.8%
Antenatal advice about breastfeeding.	Yes	302	79.9%
	No	76	20.1%
Antenatal advice about contraception.	Yes	206	54.5%
	No	172	45.5%
Pregnancies complications	Yes	76	19.9%
	No	306	80.1%
The mode of delivery of last pregnancy	Vaginal delivery	272	72.2%
	C-section	102	27.3%
Delivery complications	Yes	44	11.7%
	No	331	88.3%

Table 3: Knowledge of breastfeeding

The statements	Right answer	
	N	%
Breastfeeding and baby's health:		
It protects infants from gastroenteritis and diarrhea.	331	86.6%
It protects infants from chest infections.	296	77.5%
It protects infants from allergies.	274	71.7%
It protects babies from diabetes.	258	67.5%
It increases the baby's intelligence	10	2.6%
Using mixed feeding(both formula and breast milk) is the ideal way to ensure better nutrition for the baby	112	29.3%
Breastfeeding and mother's health:		
It protects mothers from breast cancer.	340	89%
It protects mothers from ovarian cancer.	273	71.5%
Exclusive breastfeeding is beneficial in spacing birth	244	63.9%
Breastfeeding can improve the mother–baby relationship and bonding	349	91.%
Breastfeeding practices:		
Breastfeeding should be initiated within 30 minutes after delivery	277	72.5%
Colostrum is the mother's early milk, which is thick and yellowish in color	337	88.2%
Feeding colostrum is very good for the baby's immune system	344	90.1%
Baby should be allowed to breastfeed for at least 10–20 minutes for each feeding	288	75.4%
The infant should be breastfed on demand after delivery (whenever the infant desires) during the day and night	311	81.4%
No other food and drinks are needed for up to six months of infant's age.	305	79.8%
Breast milk can expressed by hand or breast bump to be used at later time	312	81.7%
Expressed breast milk can be stored in the fridge for up to 5 days	209	54.7%
Expressed breast milk can be stored in the deep freezer for 6-12 months	147	45.5%

Table 4: Knowledge about contraception

The questions	Right answer	
	N	%
Do you think Intrauterine device can be used safely while breastfeeding?	151	39.5%
Do you think Condoms can be used safely while breastfeeding?	91	23.8%
Do you think Combination oral contraceptives can be used while safely breastfeeding?	20	5.2%
Do you think progestin-only pills can be used while safely breastfeeding?	5	1.3%
Do you think Implants can be used while safely breastfeeding?	146	38.2%
Do you think Injectable methods can be used while safely breastfeeding?	89	23.3%
Do you think withdrawal can be used while safely breastfeeding?	342	89.5%
When to start contraceptives after delivery?	131	34.3%

Table 5: Association between the knowledge score and several factors.

The associated factor		Poor knowledge N(%)	Good knowledge N(%)	P- value
Age	Below 30 years	60 (40%)	90 (60%)	0.003
	30 years and above	49 (25%)	147 (75%)	
Number of children	Up to 3 children	91 (36.9%)	156 (63.2%)	0.01
	More than 3 children	32 (23.8%)	102 (76.1%)	
Education	Illiterate	4 (40%)	6 (60%)	0.643
	School level	53 (34%)	103 66%)	
	University degree and higher	65 (30.2%)	150 (69.8%)	
Husband's Age	Below 35 years	59 (37.3%)	99 (62.7%)	0.028
	35 years and above	55 (26.6%)	152(73.4%)	
Husband's Education	School level	72 (31.9%)	154 (68.1%)	0.945
	University degree and above	48 (31.6%)	104 (68.4%)	
Family income	Up to 10,000	89 (35.6%)	161 (64.4%)	0.057
	More than 10,000	32 (25.8%)	92 (74.2%)	
Antenatal breastfeeding consultation	Received	85 (28.1%)	217 (71.9%)	0.003
	Not received	35 (46.1%)	41 (53.9%)	
Antenatal contraception consultation	Received	57 (27.7%)	149 (27.3%)	0.062
	Nor received	63 (36.6%)	109 (63.4%)	
Baby feeding type	Exclusive breastfeeding	8 (16.7%)	40 (83.3%)	0.046
	Formula milk only	56 (35.7%)	101 (64.3%)	
	Mixed feeding	55 (32.2%)	116 (67.8%)	
Contraception use	Yes	48 (25.9%)	137 (74.1%)	0.023
	No	71 (36.8%)	122 (63.2%)	

* P-value more than or equal 0.05 is considered significant

Figure 1: Pregnancy complications

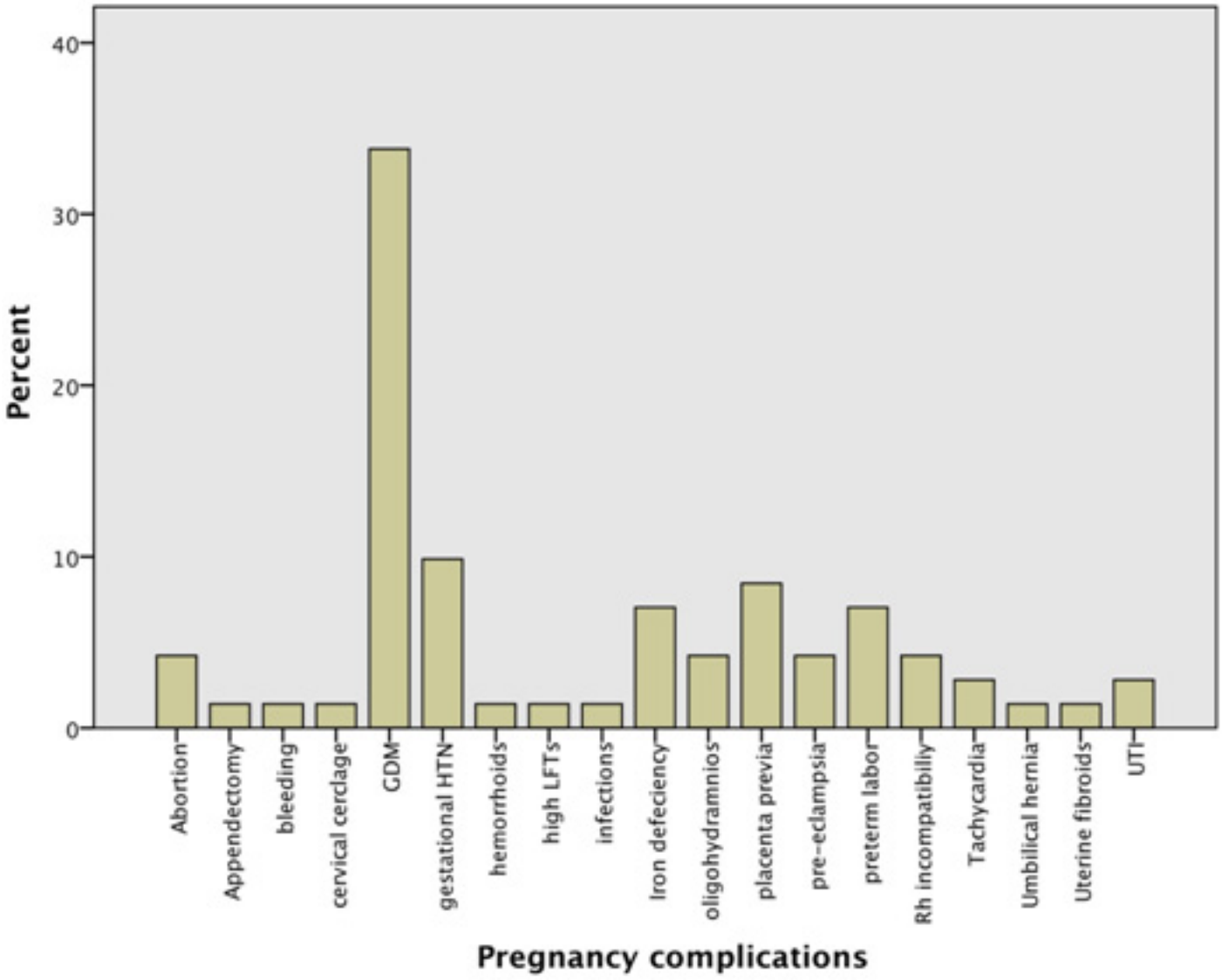


Figure 2: Delivery complications

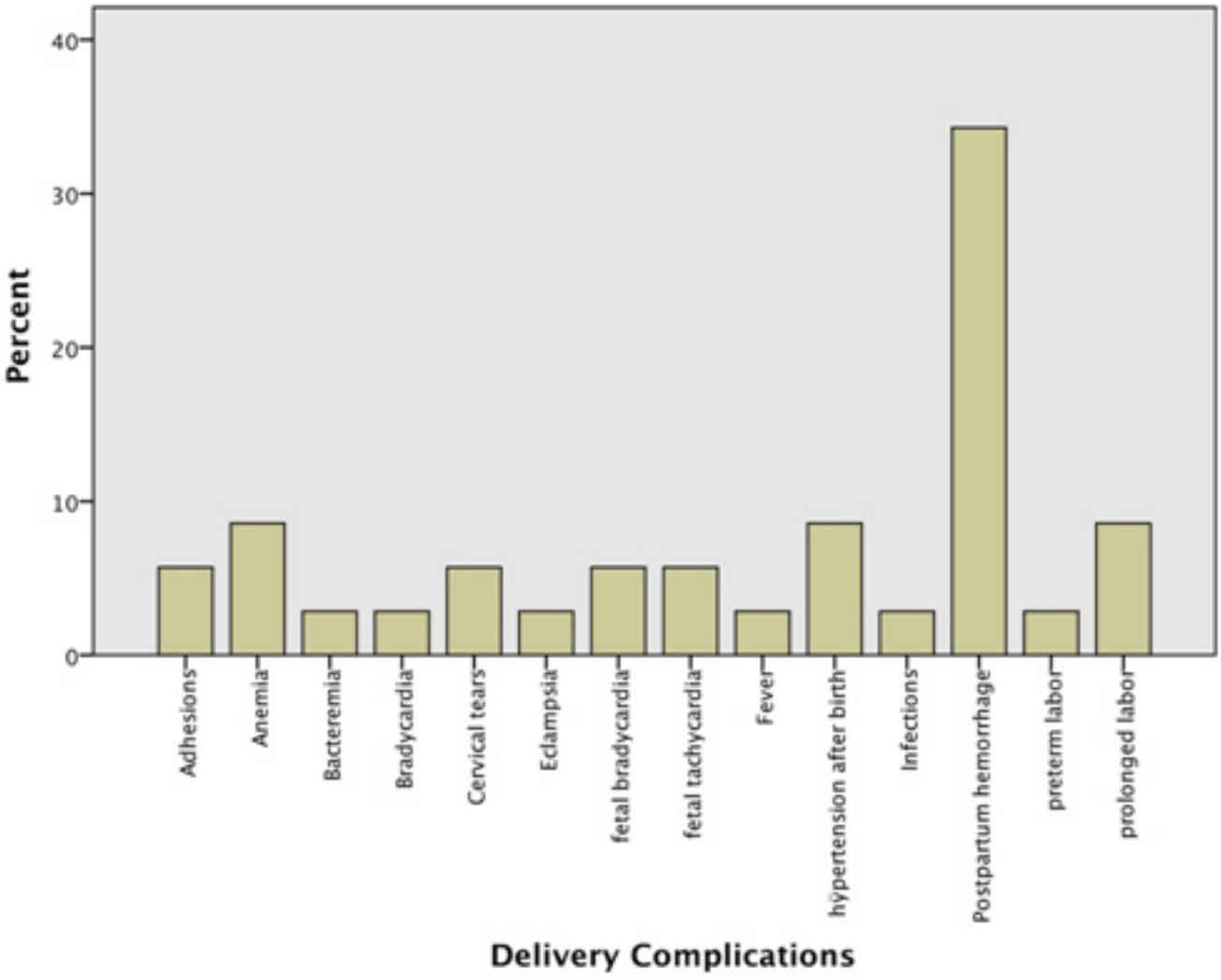


Figure 3: Barriers against exclusive breastfeeding

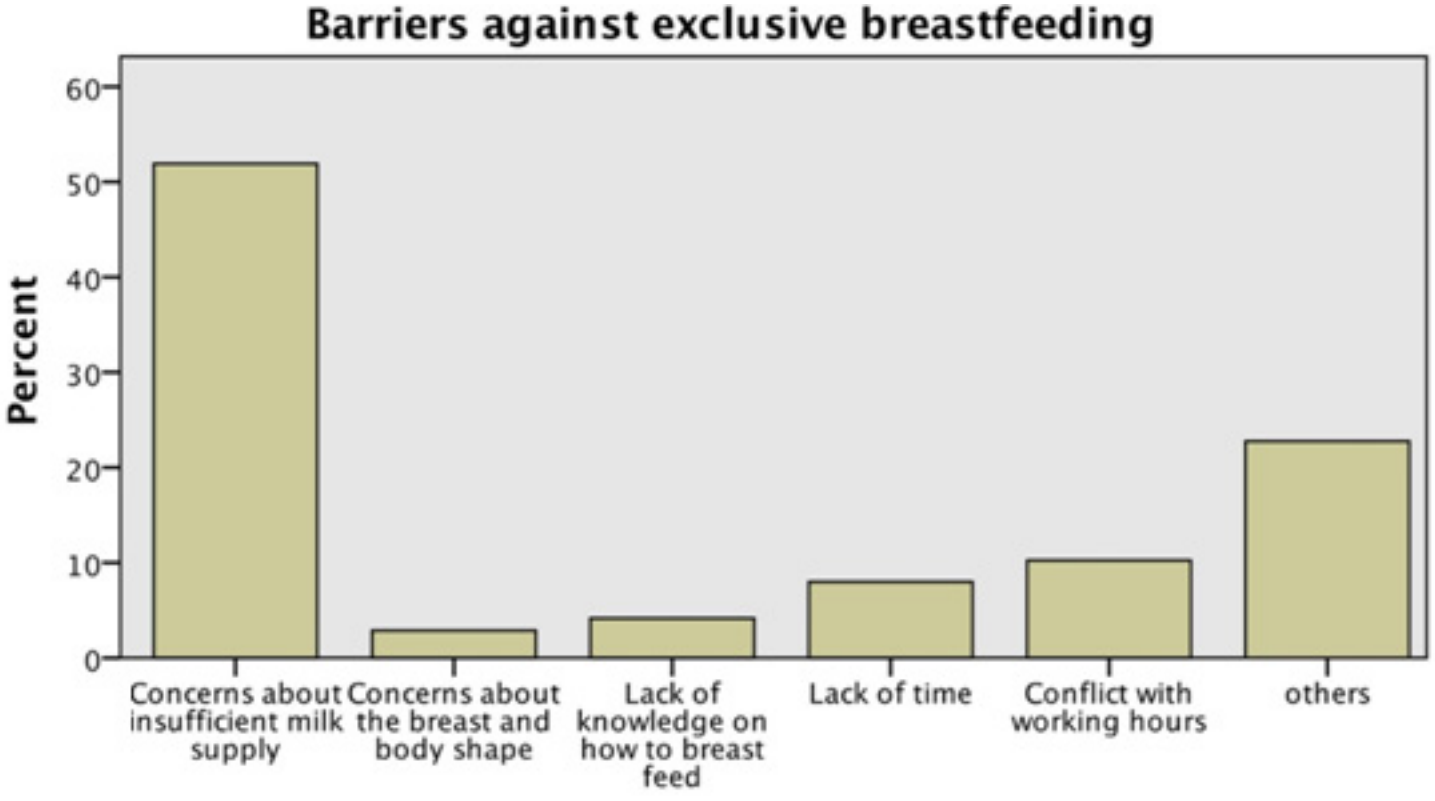


Figure 4: Contraception methods

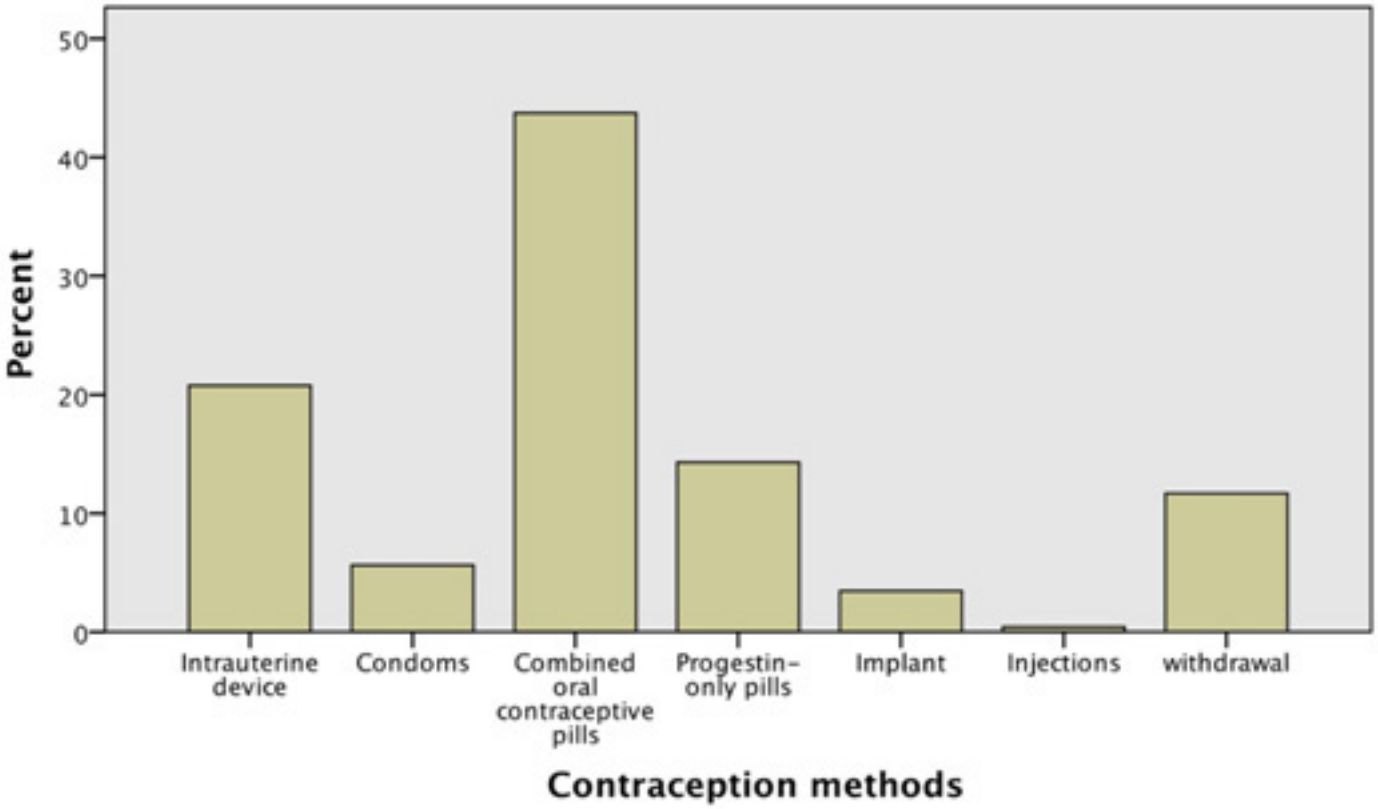
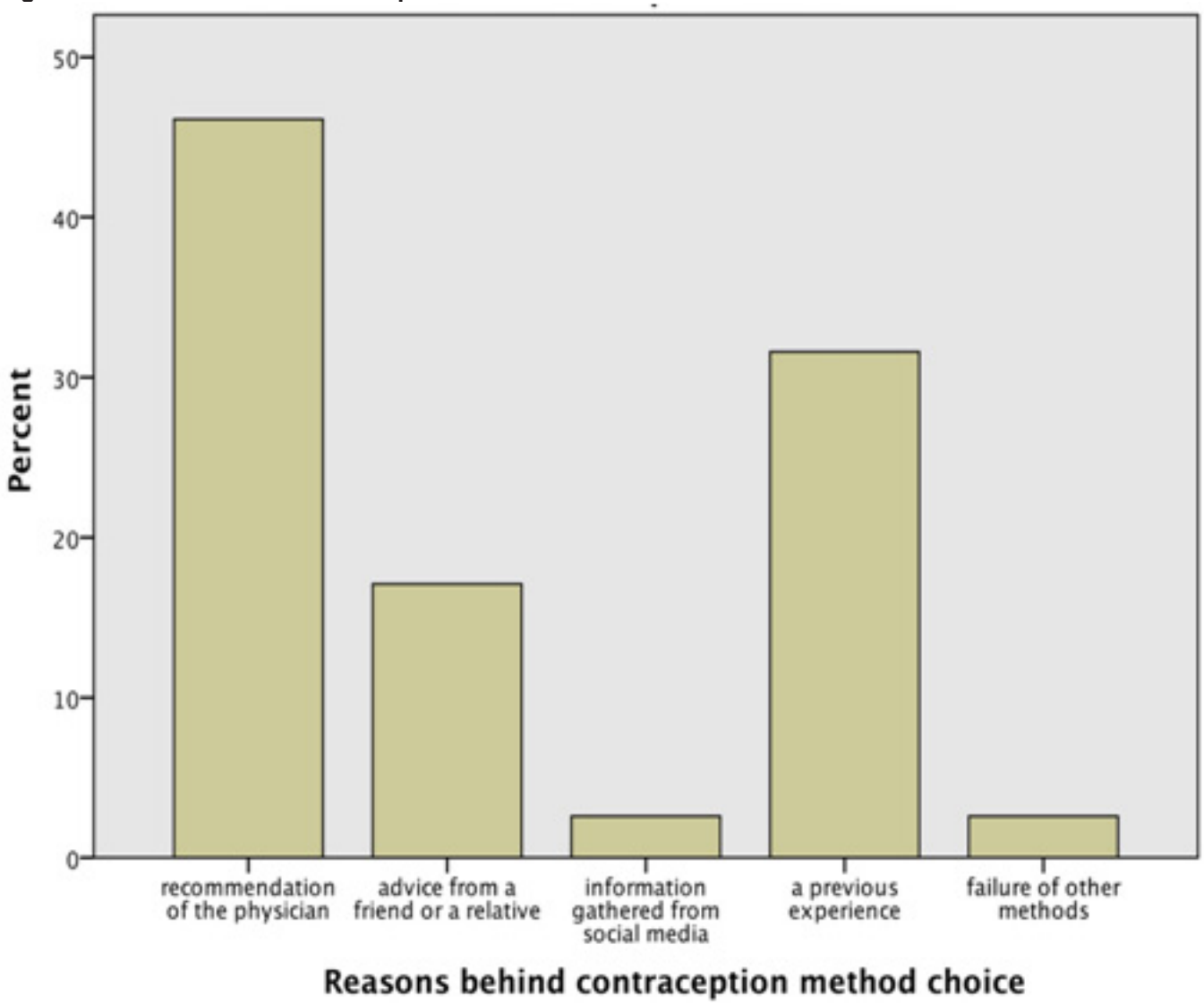


Figure 5: Reasons behind contraception method choice



The most common barrier against exclusive breastfeeding in our population was concerns about insufficient milk supply (51.8%) followed by conflict with working hours and lack of time and knowledge. This is similar to the results of Li et al., who found that 51.7% of women in the United States stopped exclusive breastfeeding because of insufficient milk production (29). Also, concerns about insufficient milk supply were a frequent reason for stopping exclusive breastfeeding in several other studies(30,31). Milk insufficiency can be due to poor maternal nutrition or lack of knowledge about the techniques of breastfeeding (32). However, in some cases, lack of confidence and lack of good knowledge about lactation can lead to an incorrect perception that insufficient milk is being produced(33). These results emphasize that we should increase knowledge related to all aspects of breastfeeding, including appropriate techniques and practice, to increase mothers' confidence about breastfeeding.

Contraception:
We found that 49% of our population are using contraceptives; this percentage is similar to several local and international studies(34,35). Also, combined contraceptive pills are the most common method used in our population, followed by the intrauterine contraceptive device. This is similar to the results of a 2017 systematic review about contraceptive knowledge and use in Saudi Arabia(36). Another study in Qatar showed similar results(37). Additionally, the knowledge source of almost half of our respondents was physicians. Conversely, the knowledge source about contraception knowledge and use in Saudi Arabia for most of the population in the 2017 systematic review was family members and friends(36). However, we found that only 54% of our population received antenatal contraception advice. This number may show a lack of education and consultation about contraception because every women has the right to receive proper education regarding contraception use. The low percentage of antenatal contraception advice may be the reason for the lack of knowledge in our population.

Knowledge regarding breastfeeding and contraception:
Although 67.8% of our population had good knowledge, their practice did not match WHO recommendations. This is similar the results of a study by Ayed et al(19). Another study showed a similar gap between knowledge and practice(17). Maternal age greater than 30 years was associated with higher knowledge in our study. The same correlation was also found in another local study(38). Older maternal age is also associated with a higher likelihood of exclusive breastfeeding(19,39,40). This finding, combined with our finding, may indicate that older women have a higher level of knowledge and practice, which may be because they have more experience. Additionally, having more than three children was associated with higher knowledge in our population. This is the opposite of the findings of a study in the UAE in which in Alketbi found women with one child to have higher knowledge (41).

Antenatal clinical advice was significantly associated with increasing knowledge among women. This expected correlation is seen in several other results(19,38,41). Mattar et al. investigated the correlation between counseling and education during antenatal follow ups and found that education and counseling were significantly associated with improved breastfeeding practices (42).

Conclusion and Recommendations

The prevalence of exclusive breastfeeding in our population was low (12.8%) despite the good knowledge in 67.8% of the population. The main barriers to exclusive breastfeeding were insufficiency of breast milk for 51.8% and conflicts between their working hours and breastfeeding for 10.3%. Vaginal delivery and parity of three or fewer were significantly associated with exclusive breastfeeding. Almost half of our population were using contraception at the time of the study; 45% of the participants who were using contraception depended on their physicians' recommendations to choose. The commonest method was combined oral contraceptive pills, used by 42.8%. Our respondents' knowledge regarding contraception was low. Higher general knowledge about breastfeeding and contraception was significantly associated with older maternal age, having more than three children, antenatal clinical advice and exclusive breastfeeding practice.
We recommend greater efforts to reduce the gap between mothers' knowledge and practice of exclusive breastfeeding. This can be done by increasing education programs and awareness to educate all women specifically targeting the younger population and ensuring availability of proper facilities to help mothers breastfeed their babies anywhere, especially at work, public places and hospitals. Additionally, proper education regarding appropriate contraception use can be done as a part of school education about reproductive health, premarital counseling and early on during pregnancy. Accordingly, a national survey is recommended to study breastfeeding and contraception knowledge and practice to improve mothers' and children's health and wellbeing.

Limitations:
This study includes mothers attending postpartum or well-baby clinics at different family medicine centers in King Abdulaziz Medical City, Riyadh, which may not represent the whole community of Saudi Arabia. Additionally, the study was limited to mothers of infants from birth to 4 months of age.

A**cknowledgements:**
We would like to express our appreciation and thanks to Dr. Imadaddin Abdulmajeed for his great support during the statistical analysis of this research work and Dr.Abdulaziz Alosail for his help in final editing of the manuscript.

Financial support and sponsorship:
Nil

Conflict of interest:
There are no conflicts of interests

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