

Knowledge, Attitude, And Experience of Bahraini Females Toward Oral Contraceptive

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ABSTRACT

Background: The availability and use of contraceptives in Bahrain have shifted significantly in recent years, highlighting the need to examine women's knowledge, attitudes, and usage patterns. Oral contraceptive pills remain a widely used birth control method, especially among women in their twenties. **Aim:** This study aimed to assess Bahraini women's knowledge, attitudes, and practices regarding contraceptives. **Method:** A descriptive, cross-sectional study was conducted in Bahrain in 2025 using an online questionnaire completed by 550 participants. The survey covered sociodemographic, attitudes, knowledge, prior experience, and contraceptive use. Data were analyzed using SPSS v20. Furthermore, the questionnaire consisted of four distinct sections that assessed attitudes, knowledge, previous experience, and patterns of oral contraceptive use. **Results:** Most participants (97.6%) were aware of contraceptives, but only 44.2% indicated that they used them. Oral contraceptive pills were used the most (55.8%), followed by intrauterine devices (12.4%) and condoms (10.3%). 68.6% of them consulted a healthcare provider before use. Prevention of pregnancy was the primary reason for use (43.8%), and the perceived lack of need was the most frequent reason for not using (56%). Common side effects included irregular bleeding (25.2%) and weight gain (20.2%). Attitudes varied: 71.7% found contraceptives accessible, 48.3% were neutral on the role of educational institutions, and 40.8% rated contraceptive effectiveness as average. Statistical correlations were found among age, marital status, and use of contraceptives ($p < 0.0001$), with married women and women aged 25–34 years more likely to use contraceptives. **Conclusion:** Despite high awareness, contraceptive use remains low among Bahraini women. Perceptions of availability were generally positive, but views on effectiveness and education varied, indicating the influence of multiple factors and the need for further research.

Keywords: Contraceptives, Knowledge, Practice, Attitude, Bahrain.

INTRODUCTION

The world's population is projected to rise from 8.2 billion in 2025 to 9.2 billion by 2050, intensifying pressure on resources and development, particularly in low- and middle-income countries. Family planning, including oral contraceptive pills (OCPs), plays a key role in managing fertility and empowering women to make informed.

Reproductive decisions (Shakya et al., 2020). OCPs are among the most widely used and effective contraceptive methods, but they are associated with a risk of cancer (Arowojolu et al., 2018; Zendejdel et al., 2020).

However, some risks are associated with OCP use, including nausea, headaches, mood changes, and, in

rare cases, serious complications such as hypertension and thromboembolism (Salh & Abdulridha, 2025;

Jahanfar et al., 2020). In addition, side effects and contraindications—such as cardiovascular conditions, hypertension, and smoking in women over the age of 35—must be carefully considered (Rifaii et al., 2024). Despite widespread awareness, misconceptions, and knowledge gaps about OCPs persist, especially regarding proper use, side effects, and long-term safety. Cultural, religious, and social factors often influence attitudes and practices, contributing to inconsistent use and unintended pregnancies (Ibrahim et al., 2024). Sociocultural traditions and norms contribute significantly to the formation of reproductive health behaviors in Bahrain; some women using contraceptives, especially if unmarried, face social shame or family disapproval. Deeply ingrained in Bahraini culture, religious beliefs can also influence family planning behavior; for example, some women may view the use of OCP as incompatible with their religious beliefs. Besides, dependence on friends and relatives as the major sources of information about contraception highlights the role of social networks, which may spread false information or give unsatisfactory advice. Many women report inconsistent exposure to reproductive health education and poor awareness campaigns, implying that Bahraini educational institutions have not adequately filled these gaps. All these interlinked social, religious, and cultural determinants add to Bahrain's contraceptive use environment. Healthcare professionals, particularly physicians and gynecologists, play a crucial role in guiding women toward selecting the most appropriate contraceptive method. Individualized counseling ensures that women understand the correct use of OCPs, potential side effects, and strategies for managing missed doses. Moreover, the expertise and attitudes of community pharmacy practitioners (CPPs) significantly impact women's ability to obtain and use OCPs effectively (Shakya et al., 2020; Cooper & Patel, 2024). Studies in the Gulf region reveal that, while many women have heard of OCPs, few understand their correct use or associated risks (Al-Mass et al., 2018b). In Bahrain, research on women's knowledge, attitudes, and experiences with OCPs remains limited. Healthcare providers, including physicians and pharmacists, play a vital role in counseling and ensuring the safe, informed use of contraceptives (Cooper & Patel, 2024). This study aims to assess Bahraini women's awareness and experiences with OCPs, identifying barriers and opportunities to enhance reproductive health education and access.

MATERIALS AND METHODS

Study Design

A descriptive community-based cross-sectional study was conducted to assess the prevalence, knowledge, attitudes, and practices of OCs use among Bahraini women. A systematic questionnaire was developed between February 2025 and May 2025 to cover this study, adhering to previously published reports with modifications. After explaining the purpose of the study, a structured online questionnaire was used to collect quantitative data anonymously from female participants aged between 18 and 45. The questionnaire sample size is around 500 responses. It is worth mentioning that women were recruited from different social and educational situations to ensure a diverse sample, while men were excluded.

Participant

The study is specifically for women only. So, all women aged 18 years and older were enrolled in the study. All women aged less than 18 years and those who were not willing to participate were excluded from the study.

Inclusion criteria

- All Bahraini women of reproductive age (15-45 years) who consented to the study.
- People with knowledge of or experience with oral contraceptives.
- Willing to participate and provide informed consent

Exclusion criteria

- Men
- Non-Bahraini residents.
- Women under the age of 18 or beyond 45.
- Individuals who refuse to take part.

Sample size

We calculated the sample size using the Raosoft® online calculator. According to the Global Word Statistics, around 682,389 females, as of 2024, live in Bahrain. (Countrymeters.info, n.d.) Therefore, around 450 participants were the minimum sample size required to achieve a 95% confidence interval and a 5% margin of error.

Data collection

Following a thorough literature review, the questionnaire was developed. It contained sociodemographic data, such as age, marital status, occupation, level of education, and prior medical history. It is also included. Four sections describe the pattern of oral contraceptive use, prior experience, attitude, and knowledge. A self-administered online questionnaire was developed to assess the prevalence, knowledge, attitudes, and experiences related to oral contraceptive pill (OCP) use among Bahraini women.

The questionnaire was adapted for the Bahraini population by drawing on previously validated research, with modifications to ensure relevance. It included multiple-choice and closed-ended questions covering various domains, including socio-demographic characteristics, knowledge, attitudes, and practices regarding OCP use. Knowledge was assessed through questions examining the mechanism of action of OCPs, proper usage, factors influencing effectiveness, and potential medication interactions. Additionally, participants were surveyed about their perceptions of effectiveness, safety, side effects, and cultural and social acceptance of OCPs and other contraceptive methods. The questionnaire also evaluated usage patterns and previous experiences among OCP users, including the reasons for use and side effects encountered.

To ensure broad participation, the survey was created using Google Forms in both Arabic and English and disseminated online through community groups and social media platforms. Participation was entirely voluntary, and responses were collected anonymously to maintain confidentiality.

Data analysis

Data was processed and analyzed using the Statistical Package for Social Sciences (SPSS), version 20, and Microsoft Excel software descriptive and inferential statistics were used to analyze the data. Frequencies and percentages were used for descriptive analysis, which was then shown as text, figures, and tables. Descriptive statistics were employed to summarize the sociodemographic data and features of the respondents under study. After establishing the normality of the data, the associations between variables were investigated using the chi-square test and ANOVA tests, as appropriate. The significance and confidence levels were set at 5% and 95%, respectively.

Statistical Analysis

For data entry and analysis, SPSS software version 20 was utilized. For the categorical variables, percentages and frequencies were calculated. To determine whether the two category variables were significantly correlated, the Chi-Square test was utilized. The factors influencing the dichotomous dependent variable were identified using binary logistic regression. P-values below 0.05 were considered statistically significant.

Ethical Considerations

The participants were fully informed about the goals and advantages of the current study before providing their oral informed consent. To maintain anonymity, no personal identifiable information was gathered, including name, address, and phone number. Participants were informed that participation was voluntary and that they could withdraw from the study at any time. The Scientific Publication and Research Committee, College of Health and Sport Sciences, University of Bahrain (ethical recommendation number 39/2024-25) approved the study.

Table I: Demographic characteristics

Demographic characteristics		N	%
Age			
	18-24 years	269	49.2
	25-43 years	141	25.8
	35-45 years	81	14.8
	More than 45 years	56	10.2
Marital State			
	Single	276	50.5
	Married	248	45.3
	Separated	17	3.1
	Widow	6	1.1
Level of Education			
	No formal education	11	2.0
	Primary	23	3.2
	Secondary	97	17.7
	Diploma	38	6.9
	Bachelor	378	69.1

RESULTS AND DISCUSSION

The study included 550 participants. The study showed that almost half (n=269, 49.2%) of the 550 participants were aged between 18 and 24, while 25.8% (n=141) were aged between 25 and 34, a sizable portion of the early reproductive age population. However, this demographic might reflect that the online nature of the study is more likely to attract younger respondents.

In addition, the age group between 35 and 45 years was (n=81, 14.8%), and the group older than 45 accounted for 10.2% (n=56) of the total participants. Contraception was used by 38% of people, down from 53.6% in 2009 (WHO & MOPH, 2017). Family planning may need to be promoted more because of this decline to support the Bahraini community's development and well-being. The study revealed that over half (50.5%) of the participants were single, while 45.3% were married. A small percentage (3.1%) were separated and 1.1% were widowed. Moreover, most participants (69.1%) have a bachelor's degree, which highlights a well-educated sample that might have broader access to reproductive and health information. Most participants were female, as the study targeted women. However, most participants (69.1%) have a bachelor's degree, with secondary education.

Table II. Knowledge-related Question

Question	n	%
Have you ever heard of birth control or contraceptives?		
Yes	534	97.6
No	13	2.4
What is your source of information for contraceptives?		
Internet	269	49.2
Family or friends	280	51.2
Health workers	270	49.4
Television	89	16.3
Other sources	77	14.1
Do you think contraceptives can be used for other purposes?		
Yes	402	73.5
No	145	26.5
Are you aware of the potential side effects of Contraceptives?		
Yes	439	80.3
No	108	19.7

(17.7%) coming in second. A smaller percentage of individuals have finished a diploma (6.9%), while the fewest have completed primary school (4.2%). (Table I). It is worth noting that despite high education levels, contraceptive use remains moderate, suggesting education alone may not overcome societal and cultural barriers. Our study's respondent demographics align with other research on contraceptive use, though we had more participants aged 18–24 years, as noted by Alsharif et al. (2022) and Kasso et al. (2023). which means that the high number of younger females suggests a generational shift in openness toward discussing family planning and reproductive health. These minor disparities show how important it is to

Consider demographic variations when examining contraceptive practices and creating targeted policies to ensure Bahrainis receive quality reproductive healthcare.

When participants were asked if they had heard about birth control or contraception pills, 97.6% (n=534) of respondents said they had heard of birth control or contraceptives, while only 2.4% (n=13) did not. (Table II). Indicating a high degree of contraceptive knowledge and awareness of them. Studies across different regions highlight widespread awareness of contraception. In Oman, nearly all married women (99.2%) were knowledgeable about family planning (Al Kindi & Al Sumri, 2019), while 95.6% of women in Saudi Arabia's Jizan Region had similar awareness (Mahfouz et al., 2023). Globally, Apambila et al. (2020) found that 99.7% of young women in northern Ghana knew at least one modern contraceptive method. These findings reflect widespread knowledge of contraception, driven by improved education, healthcare, internet access, and targeted reproductive health initiatives. Furthermore, there were two main sources of information regarding contraceptives: namely family/friends (51.2%), and healthcare providers (49.4%), followed by the internet (49.2%), while fewer participants cited television (16.3%) or other sources (14.1%), (Table II). This reflects Bahrain's high internet access and the growing influence of digital platforms in health education. However, it is important to consider the distinction between accurate understanding and awareness as misinformation. Digital platforms could affect decisions and attitudes even if the awareness is high. In Bahrain, widespread internet availability empowers women to seek reliable health information independently. However, the rising role of digital platforms underscores the importance of ensuring credible online content. Although 73.5% of our survey respondents agreed that contraceptives can be used for other purposes, and 80.3% know about their adverse effects. In general, the results showed that women in Bahrain have positive knowledge regarding contraceptive methods.

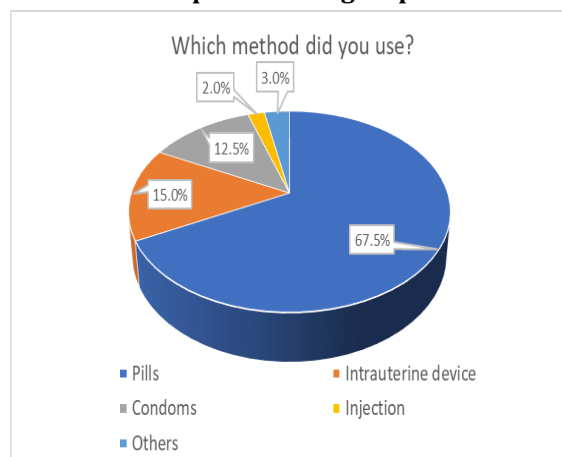
The study found that only 44.2% of women surveyed had ever used or were currently using contraceptives, while 53.6% had not (Table III). This suggests that, despite the availability of information, contraceptive use remains limited.

Table III: Practice toward the use of contraceptives

Question	n	%
Have you ever used /or currently used Contraceptives?		
Yes	242	44.2
No	293	53.6
Among those who answered "Yes"		
What is the reason that prompted you to use contraceptives?		
Prevent pregnancy	106	43.8
Reduce cramps and PMS	6	2.5
Helps in PCOS	26	10.7
Improves endometriosis	5	2.1
Improves skin and acne	4	1.7
Menstrual regulation	27	11.2
Delays the period	15	6.2
Others	11	4.5
Which method did you use?		
Pills	135	55.8
Intrauterine device	30	12.4
Condoms	25	10.3
Injection	4	1.7
Others	6	2.5
Did you consult a doctor before using contraceptives?		
Yes	166	68.6
No	34	14.0
If you have ever experienced side effects from using one or more contraception methods, which of the following have you experienced?		
Irregular bleeding	61	25.2
Weight gain	49	20.2
Breast tenderness	29	12.0
Acne	15	6.2
No side effects experienced	49	20.2
Headache	24	9.9
Nausea and vomiting	14	5.8
Peripheral edema	10	4.1
Others	53	21.9
Have you been told about the correct way to use contraceptives by a doctor or pharmacist?		
Yes	172	71.1
No	28	11.5
Among those who answered "No"		
What is the reason for not using contraceptives?		
Fear of Side effects	64	21.8
Partner disapproval	12	4.1
Doubt about the effectiveness of contraceptives	7	2.4
No reason for using them	164	56.0
Others	45	15.4

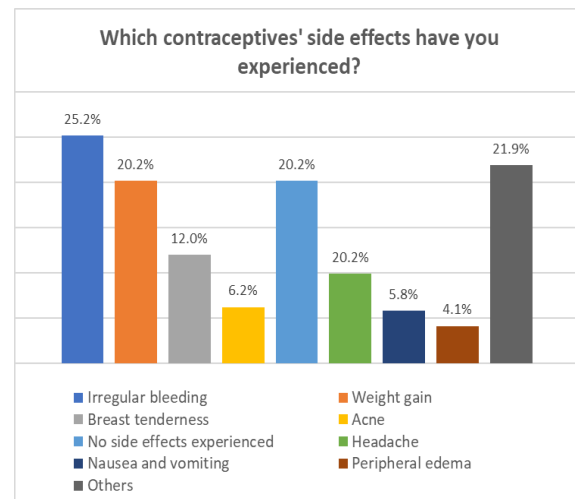
Cultural influences caused similar gaps between knowledge and usage of contraceptives in Saudi Arabia, Iraq, and Lebanon. Participants cited pregnancy prevention as their primary reason for contraceptive use (43.8%), followed by menstrual regulation (11.2%) and managing PCOS (10.7%). Regarding method preference, oral contraceptive pills were the most frequently used (55.8%), followed by intrauterine devices (12.4%) and condoms (10.3%), as shown in (Table II, &Figure 1). Oral contraceptive pills were the most common methods, reflecting patterns in Iraq and Saudi Arabia (Salh et al., 2025 &Alsharif et al., 2023), while Lebanese women used more varied methods (Al Rifaii et al., 2024). However, the majority (68.6%) consulted healthcare professionals before use—more than in Iraq and Lebanon—suggesting a greater reliance on medical advice in Bahrain.

Figure 1. Common methods of using contraceptives among respondents.



Reported side effects included irregular bleeding (25.2%), weight gain (20.2%), and breast tenderness (12.0%), consistent with regional findings. For those who did not use it, the top reasons were not needing it (56.0%) and worrying about side effects (21.8%) (see Figure 2). These adverse effects align with reports from Saudi Arabia and Iraq. In contrast, concerns among Lebanese women were more focused on rarer but potentially severe side effects, such as thrombosis. Overall, while awareness is high, personal, and sociocultural barriers continue to limit contraceptive use.

Figure 2. Contraceptive side effects that were experienced while using contraceptives



We investigated the correlation between age, education level, and contraceptive use. (Table IV) shows no statistically significant correlation between age and consultation behavior ($p = 0.386$) or between consultation behavior and education level ($p = 0.197$). However, women aged 18–24 (40) and those with a bachelor's degree (101) had the highest consultation rates. Despite bachelor's degree holders comprising most users, the association with consultation behavior was not statistically significant. These findings align with previous studies (e.g., Alsharif et al., 2022; Kasso et al., 2023), which also noted high participation among educated women. However, unlike Bendankeha et al. (2023), our data revealed lower contraceptive use among 18–24-year-olds despite their high representation. These findings show that, although education raises awareness, it does not guarantee everyone seeks professional help, suggesting potential awareness gaps regarding professional guidance.

Despite this, education level did not significantly influence consultation with a doctor before contraceptive use. These results indicate that neither age nor education level significantly affect the likelihood of seeking medical advice, although younger and more educated women showed higher consultation rates.

Table IV: The Association Between Age, Educational Level, and Consultation Behavior Among Those Who Used or Are Currently Using Contraceptive

Age	Did you consult		P-value
	Yes	No	
18-24 years	40	11	0.386
25-34 years	59	11	
35-45 years	39	11	
More than 45	30	3	
Educational level			
No formal education	4	1	0.197
Primary	11	2	
Secondary	35	10	

The p-value of ≤ 0.05 is considered significant.
P-values are of Chi-squared test.

Besides this, we also explored the relationship between age, education, and the likelihood of experiencing adverse effects among contraceptive users. While a higher percentage of individuals aged 18–24 reported side effects, as shown in Table V, the correlation was not statistically significant ($p = 0.306$). Similarly, we found no significant link between education level and reported side effects ($p = 0.211$), although younger users seemed more susceptible to these effects. This may be due to variations in health literacy or access to healthcare, which education alone cannot address.

This finding emphasizes the importance of age-specific counseling, especially for first-time users.

Table V: the Association Between Age, Marital Status, and Risk of Experiencing Side Effects Among Those Who Used or Are Currently Using Contraceptives

Age	Did you Experience side effects		P-value
	Yes	No	
18-24 years	242	27	0.306
25-34 years	131	10	
35-45 years	76	5	

More than 45	48	8	0.211
Marital status			
Single	252	24	
Married	225	23	
Separated	16	1	
Widow	4	2	

The p-value of ≤ 0.05 is considered significant.
P-values are of Chi-squared test.

Table VI: The Association Between Age, Marital status, and The Tendency to Use Contraceptives

Age	Have you ever used /or currently using Contraceptives?		P-value
	Yes	No	
18-24 years	80	183	<0.0001
25-34 years	78	60	
35-45 years	50	30	
More than 45	34	20	
Marital status			
Single	76	193	<0.0001
Married	158	87	
Separated	5	11	
Widow	3	2	

A significant association was found between age and contraceptive use ($p < 0.0001$), as shown in Table VI, with women aged 25–34 using contraception more than those aged 18–24. Marital status also showed a significant link to contraceptive use ($p < 0.0001$), with married women more likely to use contraception than single women.

Table VII: Attitude-related questions

Question	n	%
How do you assess the role of educational institutions and programs in promoting awareness about the use of these methods?		
Positive – Educational institutions made significant efforts on this subject.	133	24.9
Neutral – I have no idea about the role of educational institutions in promoting awareness.	258	48.3
Negative – educational institutions need to do more to promote awareness.	143	26.8
What is your opinion on the accessibility of Contraceptive methods in your community?		
Adequate – contraceptive methods are easily accessible to my community.	383	71.7
Insufficient – there are challenges in accessing contraceptive methods in my community.	56	10.5
Unsure – I am not sure about the accessibility of contraceptive methods in my community.	95	17.8
How do you rate the effectiveness of Contraceptives according to your opinion?		
1 (not effective)	23	4.3
2 (minimally effective)	39	7.3
3 (moderately effective)	218	40.8
4 (markedly effective)	179	33.5
5 (highly effective)	75	14.0

Half of the single participants reported never having used contraceptives, due to sociocultural barriers, lack of awareness, or perceived lack of need.

Table VII presents the attitude of respondents towards contraceptives based on accessibility, effectiveness, and the role of educational institutions. Most respondents (71.7%) reported that contraceptives were easily accessible, 10.5% found it hard to access, and 17.8% were uncertain. Contraceptive methods are readily available, but a notable minority still experience uncertainty or obstacles in access, which may warrant targeted community interventions to ensure complete availability, improved community outreach, and clearer communication on how and where to access contraceptives. As for effectiveness, 40.8% rated methods as moderately effective, 33.5% as markedly effective, and 14.0% as highly effective, while a small percentage rated them as less effective and not effective 7.3% and 4.3%

respectively, Table VIII & Figure 3. Positive perception toward contraceptive efficacy, which reflects the growth of public trust in family planning methods. Regarding the role of educational institutions, 48.3% expressed neutrality, 26.8% suggested further efforts, and 24.9% expressed positive views. Overall, the results show a cheerful outlook toward contraceptives in general but with prevailing gaps in awareness.

Compared to earlier studies, research in Jazan, Saudi Arabia, by Mahfouz, M. S. (2023), Alsharif, S. S. (2023), and Conteh et al. (2023) indicated a cheerful outlook towards contraceptive use. Research in Nigeria and India by Kasso et al. (2023) and Sukumar and John (2022) indicated comparatively more negative attitudes. These differences are the result of various cultural and socioeconomic environments.

Figure 3. Evaluating the effectiveness of contraceptives

CONCLUSION

The findings demonstrated that women possess a solid understanding of contraceptive methods but reported low usage. While women viewed access to contraception positively, their opinions on the role of educational institutions in promoting contraceptive awareness were mostly neutral to negative. Additionally, the participants' views on the effectiveness of contraceptives varied from neutral to positive. Improving usage requires health education and counseling in clinical settings. Numerous factors influence women's attitudes and behaviors toward contraception, emphasizing the need for further research to bridge this gap.

LIMITATIONS

This study has limitations, such as potential selection bias due to its online format and the inability of its cross-sectional design to establish causality. The brief period may have impacted accuracy, and the sensitive nature of reproductive health diminished participant engagement. Limiting the sample to women aged 18 and older also contributed to a longer duration and lower response rate. Future studies should consider longitudinal designs with offline methods and random sampling to enhance reliability and generalizability.

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CONFLICT OF INTEREST

"The authors declare no conflict of interest"

FUNDING

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ETHICAL APPROVAL

The study was approved by the Scientific Research and Publication Committee, College of Health and Sports Sciences, University of Bahrain (ethical recommendation number 39/2024-25).

REFERENCES

- Shakya, S., Shrestha, S., Shrestha, R. K., Giri, U., & Shrestha, S. (2020). Knowledge, attitude, and practice of emergency contraceptive pills among community pharmacy practitioners working in Kathmandu Valley: a cross-sectional study. *BMC Health Services Research*, 20(1). <https://doi.org/10.1186/s12913-020-05543-5>
- Khalil, S. N., Alzahrani, M. M., & Siddiqui, A. F. (2017). Unmet need and demand for family planning among married women of Abha, Aseer Region in Saudi Arabia. *Middle East Fertility Society Journal*, 23(1), 31–36. <https://doi.org/10.1016/j.mefs.2017.07.004>
- Arowojolu, A. O., Gallo, M. F., Lopez, L. M., Grimes, D. A., & Garner, S. E. (2009). Combined oral contraceptive pills for treatment of acne. The Cochrane database of systematic reviews, (3), CD004425. <https://doi.org/10.1002/14651858.CD004425.pub4>
- Jahanfar, S., Zendehelel, M., Hamzehgardeshi, Z., & Fooladi, E. (2020). An Investigation into Long-acting Reversible Contraception: Use, Awareness, and Associated Factors. *European Journal of Environment and Public Health*, 4(2). <https://doi.org/10.29333/ejeph/7837>
- Ibrahim, M. J., Khalife, L. E., Ghanem, Y. D., Baz, G. S., & Cherfane, M. M. (2024). Gap in knowledge of health benefits and risks of combined oral contraceptives among Lebanese women. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-023-17439-0>
- Cooper DB, Patel P. Oral Contraceptive Pills. [Updated 2024 Feb 29]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430882/>
- Al-Mass, A. A., Al-Shahrani, B. S., Al-Mweisheer, A. N., Tulbah, S. A., Syed, S., Anwer, R., & Haque, S. (2018b). User Experience, Knowledge, and Practice of Oral Contraceptive: A Study from Riyadh, Saudi Arabia. *Annals of Medical and Health Sciences Research*. <https://www.amhsr.org/articles/user-experience-knowledge-and-practice-of-oral-contraceptive-a-study-from-riyadh-saudi-arabia-4999.html>
- World Health Organization. (2022). *Contraception*. World Health Organization; World Health Organization. https://www.who.int/health-topics/contraception#tab=tab_1
- Alsharif, S. S., Abu Saeed, R. I., Alskhairi, R. F., Almuwallad, S. A., Mandili, F. A., & Shatla, M. (2023). Knowledge, attitude, and practice of contraception use among childbearing women in Makkah region, Saudi Arabia. *Cureus*, 15(2). <https://doi.org/10.7759/cureus.34848>
- Kasso, T., & Alegbeleye, J. O. (2023). Knowledge, Attitude and Practice of Contraceptive Use among Women of Reproductive Age in Port Harcourt, Nigeria. *Advances in Reproductive Sciences*, 11(4), 93–105. <https://doi.org/10.4236/arsci.2023.114009>
- Al Kindi, R. M., & Al Sumri, H. H. (2019). Prevalence and sociodemographic determinants of contraceptive use among women in Oman. *Eastern Mediterranean Health Journal*, 25(7), 495–502. <https://doi.org/10.26719/emhj.18.064>
- Mahfouz, M. S., Elmahdy, M., Ryani, M. A., Abdelmola, A. O., Kariri, S. A. A., Alhazmi, H. Y. A., Almalki, S. H. M., Adhabi, O. M., Ali Hindi, S. M., Muqri, N. M., & Towhary, B. A. (2023). Contraceptive Use and the Associated Factors among Women of Reproductive Age in Jazan City, Saudi Arabia: A Cross-Sectional Survey. *International Journal of Environmental Research and Public Health*, 20(1), 843. <https://doi.org/10.3390/ijerph20010843>
- Apambila, R. N., Owusu-Asubonteng, G., & Dassah, E. T. (2020). Contraceptive use among young women in northern Ghana: a community-based study. *The European Journal of Contraception & Reproductive Health Care*, 25(5), 339–344. <https://doi.org/10.1080/13625187.2020.1783651>
- Salh, F. M., & Manal Khalid Abdulridha. (2025). Assessment of awareness about contraception among a sample of Iraqi women using hormonal contraceptives: a cross-sectional study. *Pharmacia*, 72, 1–14. <https://doi.org/10.3897/pharmacia.72.e140451>
- Al Rifaii, N., Alaeddine, C., Domiati, S., & El-Lakany, A. (2024). KNOWLEDGE, ATTITUDE, AND EXPERIENCE OF LEBANESE FEMALES TOWARD ORAL CONTRACEPTIVE USE. *BAU Journal - Health and Wellbeing*, 6(1). <https://doi.org/10.54729/2789-8288.1202>
- Ilankunda Bendankeha, & Kiu Publication Extension. (2023). Knowledge, Attitude and Practice of Contraception among Women of Reproductive Age in Bugembe Health Centre... *ResearchGate*, 10(2), 85–95. https://www.researchgate.net/publication/373644349_Knowledge_Attitude_and_Practice_of_Contraception_among_Women_of_Reproductive_Age_in_Bugembe_Health_Centre_IV_Iinja_District_Eastern_Uganda
- Conteh, M., Kamara, I. T. C., Conteh, K., & Bourne, P. A. (2023). Assessing the Knowledge, Attitude and Practices of Family Planning use among Women in Reproductive Age... *ResearchGate*, 1–2023. https://www.researchgate.net/publication/368396521_Assessing_the_Knowledge_Attitude_and_Practices_of_Family_Planning_use_among_Women_in_Reproductive_Age_15-49_at_Panlap_Community_Sierra_Leone
- Sukumar, M. B. A., & John, S. M. (2021). Knowledge, Attitude and Practices of Contraceptives Among Married Women of Rural Vellore. *The Journal of Obstetrics and Gynecology of India*. <https://doi.org/10.1007/s13224-021-01552-4>