International Journal of Innovative Research in Medical Science (IJIRMS)
Volume 08, Issue 11, November 2023,
https://doi.org/10.23958/ijirms/vol08-i11/1771

Original article

Utilization of Contraception Among Women of Reproductive Age in Ajman, UAE

Navana Hemanth [1], Musamat Umma Saifa [1], Ashiba Ashik [1], Mehrin Sherif [1], Jayakumary Muttappallymyalil [2]

[1]MBBS Students, [2]Assistant Professor,
Department of Community Medicine, College of Medicine, Gulf Medical University Ajman, UAE.

*Corresponding author: Dr. Jayakumary Muttappallymyalil, *dr.jayakumary@gmu.ac.ae*; *drjayakumarymuttappallymyalil@gmail.com*

Received 12 October 2023; Accepted 28 October 2023; Published 01 November 2023

Abstract

This study was conducted to determine the contraception utilization pattern and to assess the factors influencing contraceptive utilization among women in the reproductive age group in Ajman, UAE. This cross-sectional study was conducted in April 2022. A total of 209 participants were recruited from University Hospital, shopping malls, and residential areas in Ajman. An interviewer-administered validated questionnaire was used for data collection. The domains covered include Socio-demographic profile, Reproductive history, Utilization pattern, and Factors influencing the choice and discontinuation of contraception. Participants were women in the reproductive age group (18-44 years), of any nationality and those who consented to participate in the research. Collected data was entered into an Excel spreadsheet and transferred to SPSS version 28 for analysis. Descriptive statistics was used to describe the study population. The chi-square test was used to test the association between independent variables and dependent variables (choice, use, and discontinuation). The p-value was set at ≤ 0.05 which is considered statistically significant. Out of 209 women interviewed, only 53.1% utilized contraception to limit family size. Participants who considered their partner's wishes as very important refrained from using contraceptives (42, 80.8%). Cultural background had a major negative influence which led participants to avoid contraceptive use (37, 72.5%). with regard to participant's education, there is a contrast between the usage of contraception among individuals with an education above the undergraduate level (53;31.3%) and below (11;27.5%). Participants with husbands who received an education above undergraduate level (36;26.3%) showed limited usage of contraception as compared to those less than undergraduate (13;39.4%). To conclude the prevalence of utilization of contraception was 53.1%. The nationality of the participants and husband's education was highly associated with contraceptive use. The number of previous live births also determined the use of contraceptives. Healthcare professionals especially doctors played a pivotal role in spreading awareness about contraception and newer forms of contraceptives. Along with complications in the previous pregnancy, Influence from both partner and family leading to discontinuation of contraceptives also had a major impact. The belief among participants that contraception influences hormones was a factor that impacted the usage of contraception.

Keywords: ***Contraception, Contraceptives, Family planning, Married women, Reproductive age group.***

Introduction

Contraceptives prevent unintended pregnancy and have evolved over time to be safer and more effective [1-3]. Family planning has significant health benefits, including reducing maternal illness and pregnancy-related fatalities, delaying pregnancies in older women and young adults, and minimizing the need for unsafe abortions and HIV transmission [2,3].

According to the 2018 data, the most used contraceptives were female permanent contraception (28%), then pills (21%), male condoms, and IUDs (both 13%) in the USA [1-3]. Permanent contraception is more common among women aged 40-49, married women with children, and middle-aged women with low income or education [1]. Pills are primarily used by young and middle-aged women in relationships or who are single (ages 15-35) [6]. IUDs are more common among individuals with children and less common among those with higher incomes [1]. Additionally, Western countries have fewer members per family compared to Middle Eastern or Asian societies [1].

Barrier methods were more commonly used in Italy, Spain, and the UK than in France or West Germany [6]. UK research indicates that oral contraceptives (OCP) lower the risk of iron deficiency anemia in both current and former users by reducing menstrual flow [4]. The Eastern Mediterranean Region has the world's second-lowest contraceptive prevalence rate (48%) and the second-highest unmet need for family planning (18%), after the African Region [7]. In the UAE, women of various nationalities, job statuses, and fertility goals use contraceptives based on their needs. A study conducted in Ajman, UAE found that expatriates used contraceptives more than Emiratis [7]. Women's contraceptive use was influenced by family size (if they have achieved their ideal family size) and education level, with doctors being their main source of information [7]. Both partners decided on the choice and period of use, with male condoms, OCPs, and IUDs being common

methods. Some preferred traditional methods, but most preferred male condoms [7].

Another study conducted in Ajman, UAE, analyzed the factors influencing contraception non-use.7 Women over 35 were 56% less likely to not use contraception than those under 25, while women with elementary education were three times more likely than postgraduates to not use contraception.7 Women who were well-informed about contraception were more likely to use it.7 Some factors responsible for nonuse are husbands' influence, fear of side effects like inability to conceive later in life, socio-economic status, religious reasons, and family pressure.8,9. This research was conducted to determine the utilization pattern of contraception and the factors that influence the utilization of contraceptives among women in the reproductive age group in Ajman, UAE.

Materials and Methods

The cross-sectional study was conducted among 209 married women in the reproductive age group between 18 and 44 years, of any nationality, and only those who could comprehend the questions and were willing to participate in the research by giving informed consent. This research was conducted over a period of 6 months. A questionnaire was used covering socio-demographic profile, and utilization pattern after a thorough literature review. The variables that were used in the domains include Socio-demographic profile: age, nationality, education, occupation, marital status; Reproductive history: Duration of married life, No. of children; Utilization pattern: traditional and nontraditional methods of contraception; Factors influencing the choice of contraception: Satisfaction with the contraceptive method, vulnerability to becoming pregnant, access to contraception when needed, limited family size, spacing, financial reasons, complication during last pregnancies, medical reasons, genetic defects in last child, working women; Factors influencing Discontinuation: Secondary infertility, dangerous to health, husband's refusal, previous side effects, cultural reason, illness or medical problem, family don't allow; Sources of information: media, family members, community, health care provider, magazine.

The research was approved by the Institutional Review Board of Medical University Ajman, UAE. After obtaining approval, participants were briefed about the research and informed that participation is completely voluntary, withdrawal from research is possible at any time, posed no physical or psychological harm, and no drugs or placebos were administered. Written informed consent was obtained from the participants before conducting the research. Participants' privacy and confidentiality were guaranteed in accordance with human research ethics guidelines, with no identifying information collected. Interviews were conducted individually at the participants' convenience. Upon completion of the questionnaire, it was checked for completeness. After the data collection, the data was fed into Excel spreadsheet and was transferred to SPSS version 28 for analysis. Descriptive statistics was used to describe the study population. Chi-square test was used to test the association between independent variables and dependent variables. P value is set at ≤ 0.05 which is considered as statically significant.

Results and Discussion

Majority of the participants were under 35 years old and had education above undergraduate level. Participants in the private sector had the higher use of contraceptives compared to the government sector. Participants who used contraceptives to reduce the chances of pregnancy were high, and most believed that contraceptives could avoid unplanned pregnancy. Family and cultural influences were minimal. Chronic medical conditions and complications in previous pregnancy had the least influence on the use of contraceptives. There was no significant difference in contraceptive use between the two age groups.

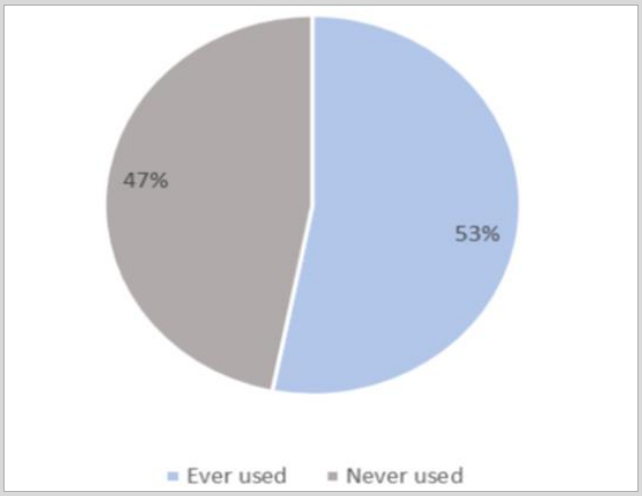

Figure 1: Participants who have used contraception

The figure depicts the difference between participants who have used contraception at least once with those who have never used contraception.

Table 1: Distribution of participants according to Factors influencing the use of contraception (n=209)

Factors influencing utilization of contraception	Groups	Number	Percentage
To reduce chances of pregnancy	Yes	110	52.6
	No	99	47.4
Chronic medical condition	Yes	7	3.3
	No	202	96.7
Interference with satisfaction during intercourse	Yes	32	15.3
	No	177	84.7
Partner's choice	Yes	128	61.2
	No	81	38.8
Limit family size	Yes	101	48.3
	No	108	51.7
Employment's role	Yes	43	20.6
	No	166	79.4
Financial background influence	Yes	23	11
	No	186	89
Complications in previous pregnancy	Yes	22	10.5
	No	187	89.5

Table 1 exhibits the factors influencing the use of contraceptives. Participants who utilized contraceptives to reduce the chances of pregnancies were comparatively high 110 (52.6%). Many participants agreed that use of contraceptives did not interfere with satisfaction during coitus 177 (74.7%) and their partner's choice influenced their use 128 (61.2%). Chronic medical condition 202 (96.7%) and complication in previous pregnancy 187(89.5%) were factors that least influenced the use of contraceptives. Participants whose contraceptive use was influenced by employment were 166(79.4%) and financial background 186 (89%). Participants who wished to limit family size were 101 (48.3%).

Table 2: Distribution of participants according to the Barriers in contraceptive utilization

Factors influencing contraceptive utilization	Groups	Number	Percentage
Partner's wish	Not important	10	4.8
	Important	85	40.7
	Less important	14	8.7
	Somewhat important	48	23.0
	Very important	52	24.9
Family's influence	Yes	51	24.4
	No	158	75.6
Cultural influence	Yes	51	24.4
	No	158	75.6
History of side effects	Yes	31	14.8
	No	128	61.2
Media influence	Yes	73	34.9
	No	136	65.1
Positive / Negative influence of media	Positive	69	33.0
	Negative	23	11.0
Believe in link between Contraception and Hormonal health	Yes	146	69.9
	No	63	30.1
Believe contraceptives can avoid unplanned pregnancy	Yes	168	80.4
	No	41	19.6

The study reflects the barriers affecting the use of contraceptives, amongst which 85 participants (40.7%) give importance to their partner's wish. Influence of family and culture in utilization of contraceptives came with a notable negative response of 158 (75.6 %). Participants reporting side effects were less 31 (14.8%) but many participants 146 (69.9%) believed that contraceptives could affect their hormonal health. Influence of media on contraceptive use was comparatively less with 73 (34.9%) replying yes, with positive influence of 69 (33%). Participants who believed contraceptives could avoid an unplanned pregnancy 168 (80.4%) were remarkably high.

Table 3: Association between Sociodemographic factors and Contraceptive Utilization

Variables	Groups	Utilization of Contraceptives				P value
		Yes		No		
		No.	%	No.	%	
Age group	Less than 35	34	30.1	79	69.9	0.48
	Greater than or equal to 35	30	31.3	66	68.8	
Nationality	South-East Asia	37	30.1	86	69.9	0.479
	Others	27	31.4	59	68.6	
Education	Less than Undergraduate	11	27.5	29	72.5	0.393
	Undergraduate and above	53	31.4	116	68.6	
Occupation	White	25	32.9	51	67.1	0.349
	Others	39	29.3	94	70.7	
Job sector	Private	44	31	98	69	0.319
	Government	1	14.3	6	85.7	
Job status	Employed	45	30.2	104	69.8	0.48
	Unemployed	19	31.7	41	68.3	
Family system	Nuclear family	50	30.7	113	69.3	0.565
	Others	14	30.4	32	69.6	
Husband's education	Less than Undergraduate	13	39.4	20	60.6	0.102
	Undergraduate and above	36	26.3	101	73.7	
Husband's occupation	White	34	37.4	57	62.6	0.007
	Others	15	19.2	63	80.8	

Table 3 shows the contrast between contraception use among individuals with an education above undergraduate level (53;31.3%) and below (11;27.5%). The prevalence of non-use amongst participants with an education below undergraduate level (29;72.5%) is higher than those with education above undergraduate level (116;68.6%). Individuals with white collar jobs (25;32.9%)

showed wide disparity in use with other job collars (39;29.3%). In terms of job status, the majority of users were unemployed (19;31.7%) than employed (45;30.2%). Participants with husbands who received an education above undergraduate level (36;26.3%) showed limited usage as compared to those below undergraduate (13;39.4%). Participants with Husband's occupation being white collar jobs (34;37.4%) showed significantly higher use than other job collars (15;19.2%).

Table 4: Association between Influencing factors and Contraception Utilization

Variables	Groups	Utilization of Contraception in the past 30 days				P value
		Yes		No		
		No.	%	No.	%	
Reduce the chances of pregnancy	Yes	54	49.1	56	50.9	<0.001
	No	10	10.1	89	89.9	
Chronic medical condition	Yes	4	57.1	3	42.9	—
	No	60	29.7	142	70.3	
Interference with satisfaction	Yes	10	31.3	22	68.8	0.542
	No	54	30.5	123	69.5	
Partner's choice	Yes	40	31.3	88	68.8	0.465
	No	24	29.6	57	70.4	
Limit family size	Yes	49	48.5	52	51.5	<0.001
	No	15	13.9	93	86.1	
Role of employment	Yes	18	41.9	25	58.1	0.056
	No	46	27.7	120	72.3	
Financial background	Yes	7	30.4	16	69.6	0.596
	No	57	30.6	129	69.4	
Complication in previous pregnancy	Yes	12	54.5	10	45.5	0.012
	No	52	27.8	135	72.2	

Among those who used contraception, the majority (54, 49.1%) used it to reduce the chances of pregnancy. Greater proportion of participants used it to treat a chronic medical condition (4, 57.1%). On the other hand, minority of non-users listed chronic medical conditions as a reason for non-use (3, 42.9%). Most (10, 31.3%) participants reported that using contraceptives impacted satisfaction during intercourse. A greater part of users took their partner's choice into account when utilizing contraceptives (40, 31.3%).

Discussion

This study examined contraception usage among women of reproductive age in Ajman, UAE, with a prevalence of 53.1%. This differs from the modern contraceptive prevalence rates in the Oceanian and Northern American regions, which were 58% and 48%, respectively. A study from South India also reported a higher rate of contraceptive usage, with 75% of couples having used contraception at least once. The lower usage in UAE may be attributed to cultural and religious factors that limit societal acceptance of contraception, the results indicate significant geographical variance [8].

The current study found the incidence of non-use is higher among people with below-undergraduate-level education (29; 72.5%) than it is among those with beyond-undergraduate-level education (116; 68.6%). Similar results from an Indonesian study stated women with higher education levels used contraception more frequently.

Employment position of women and the use of contraceptives are directly related. The study found that unemployed women (19;31.7%) used contraceptives more than employed women (45;30.2%). This contrasts with some previous research that has found that employed women are more likely to use contraception, possibly due to their higher awareness of its benefits and socioeconomic status [12].

The current study shows that women in the private sector used contraception more than those in the government sector, possibly due to mothers prioritizing family and childcare obligations in their employment decisions. Women may prefer government jobs for their increased job and income security, better working conditions, and lighter workload [8].

The current study reported a significant association between husbands' education and contraception use. Participants with husbands beyond undergraduate level education showed limited usage compared to those below undergraduate level education. These results are similar to a study from Papua New Guinea which showed that women whose husbands had no formal education hushed contraception more and vice versa [14].

Both nuclear and other family structures (50;30.7%) were strongly correlated with contraceptive use (14;30.4%). Participants who acknowledged the influence of extended family members reported reduced contraceptive use, likely due to cultural norms discouraging contraceptive use [43].

The majority of women in this current study having two children or more used contraceptives the most whereas women with no children or children less than two used contraceptives the least. Similarly, a study from Ajman implied that women with no children didn't use contraceptives as compared to women with six or more children. This is probably due to women reaching their fertility goal and wanting to limit the family size, it is also common for women to use contraceptives to increase pregnancy intervals safeguarding maternal health [17].

In the present study, contraceptive use was higher in participants who had a history of miscarriage than women who did not. A study conducted on FP and counseling for women who experienced miscarriage, nearly half of the participants (12/26) had different child bearing plans after miscarriage, only some women with strong desire for pregnancy were ready to try again. Among women who suffered pregnancy loss, the desire to delay getting pregnant was driven by worries about the potential psychological or familial impacts of a second pregnancy loss.

In the current study, participants who did not have an abortion (30.9%) were found to be the most likely to seek contraception. Similar findings were obtained in research conducted in Northwest Ethiopia (41.3%) and China (38%) [16]. Participants

who avoided using contraception had the lowest rates of stillbirth, which suggests that both are linked.

Women who did not use contraceptives because of family (58.8%) were comparatively lower than those who didn't use it because of other reasons. In a study conducted in India regarding the influence of mother in laws (MILs) on young couples' FP decisions showed that MILs had a significant impact on the type of contraceptives young couples use, with those who had sterilized themselves preventing their DILs from doing the same until the desired family size was reached. 44 out of 60 women acknowledged the authority of their MILs regarding contraceptive use, potentially due to traditional authority hierarchy and to prevent conflicts in the household or marriage [28].

The majority of participants in this study (59.4%) did not use contraceptives due to their side effects. However, a different study found that side effects, such as amenorrhea and menorrhagia, weight changes, dizziness, and decreased libido, were a common reason for discontinuing contraceptive use. This could be due to participants using short-term contraceptives or improved contraceptive types [23]. This study reported that majority of participants learnt about contraception via medical professionals and social media, 38.4% and 33.3%, respectively. In contrast, this data does not match the findings of the Ugandan research where the majority of participants reported the radio being the primary source of knowledge [19].

Higher percentages of users reported positive influence from media (33.3%) compared to nonusers. These results suggest that non-using participants consider media to affect their perception of contraception more negatively than the ones who have used [45]. In Indonesian Research, 50% of women said they were disappointed with the quality and extent of information they found online concerning contraception. Improving the sources of information about contraceptives is the greatest way to promote their usage while avoiding bias from unreliable sources [23]. The research data shows that in Ajman, 37.3% of reproductive-aged women use condoms as their form of contraception. However, studies by Shree et al. (70.9%), Patel AA, et al. (33.7%), and Nanda et al. (30.5%) indicate that tubectomy (81.6%) is the most popular permanent contraception method. In Papua New Guinea, injectables were the most commonly used and preferred method by reproductive-aged women in a similar study. This discrepancy in the results may be caused by women's ignorance of alternative contraceptive methods [46].

The study, 49.1% of women used contraceptives to prevent pregnancy. Another study found that younger participants who wanted to pursue higher education, women who wanted to space their pregnancies, and those with marital problems used contraception to prevent pregnancy [23]. A University of California Medical Center study found that women with chronic medical conditions preferred long-acting and reversible methods of contraception, with the majority choosing IUDs (56%) and implants 17(18%) to avoid complications related to their medical condition [35]. A cross-sectional study conducted in Northern India revealed a higher preference for temporary methods for limiting family size than permanent methods. One-third of respondents used permanent methods whereas another one third used temporary methods [43].

Most of the participants reported that their usage was affected by their job (18, 41.9%), potentially due to their high job status and workload resulting in increased stress which leads to more time devoted to work. This result is consistent with a research conducted in India that found professional employment rates were higher for women who used IUDs or had no children. In a study that reviewed sexual acceptability of contraceptives, women who used contraception like withdrawal, vasectomy and condoms were concerned that it would diminish their partner's satisfaction and hence would not suggest contraceptives (condom) during intercourse.

Conclusions

To conclude the prevalence of utilization of contraception was 53.1% and was greatly affected by the respondents and husband's education, occupation and job sector. A collective number of participants from South East Asia (123;59.9%) dominated users from other regions (86;41.1%) by a great margin. A significant association between source of information, partner's influence on decision making, history of side effects and complications in previous pregnancy were observed with contraceptive usage. Majority of the participants reported healthcare professionals (41.1%) being the primary source of information on contraception. Finally, participant's belief that contraception influences hormonal health was a factor that impacted its usage. Health education programs must be conducted to elevate knowledge among both men and women and to encourage the utilization of contraceptives by informing the availability of various types of contraceptives, their benefits, and side effects. A study must be conducted to assess the perception of the decision maker and the role of the spouse in preventing and influencing the use of contraceptives. The quality and effectiveness of contraception must be evaluated to prevent discontinuation as well as reluctance towards its use.

Ethics approval and consent to participate

This research was approved by the Institutional Review Board of Gulf Medical University Ajman UAE (IRB/COM/STD/82/APRIL-2022).

List of abbreviations

UAE: United Arab Emirates
UK: United Kingdom
OCP: Oral Contraceptive Pills
IUD: Intra Uterine Devices

Data Availability

Data is available in the Dept. of Community Medicine, College of Medicine, Gulf Medical University, upon request it can be provided.

Conflicts of Interest

"The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper."

Funding Statement

No funding was received.

Authors' contributions

"NH, MUS, AA, and MS developed the concept, and research proposal, designed the questionnaire, and carried them out under the supervision of JM. NH prepared the manuscript with contributions from all co-authors. JM edited the manuscript. "All authors read and approved the final manuscript".

Acknowledgments

NH The authors would like to acknowledge all those who have participated in this research.

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