



# **Preferences of Family Planning Methods in Iraqi Women**

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### Summary

**Background**: Family planning program is essential in well-health development of society especially in developing countries. Preferences of women in family planning methods are important in monitoring and evaluation of the program.

**Objective**: To assess the preferences of women at reproductive age toward contraceptive methods in Karbala city.

**Methodology**: Present study was a descriptive cross sectional study that carried out in family planning unit of four primary health care care centers (Al Abasia Algharbia, Al Mulhuq, Al Muathafine and Al Wafaa primary health care centers) at Karbala city- Iraq through duration period of six months from first of February to 31st of July, 2022 on sample of two hundred women. The recently used family planning method was considered as the preferred family planning method.

**Results**: The common family planning method used by women was oral contraceptive pills (30%), followed by; intrauterine contraceptive device (22%), barriers like condoms and cervical caps (18%), withdrawal (14%), injectable contraceptives (8%) and rhythm method (8%). In general, 22% of women preferred traditional contraceptive methods, while 78% of them preferred modern contraceptive methods. The common risk factors related to use of traditional methods in present study were women's age and their educational level.

*Conclusions*: The common preference toward family planning methods of Iraqi women in Karbala city is oral contraceptive pills.

Keywords: Family planning, Modern, Traditional

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#### **1. INTRODUCTION**

The family planning is defined as an important primary health care service aimed to improve maternal and child health, reducing maternal and infantile mortality and helping women in reproductive age to organize their lives with better outcomes (1). This health service is regarded as basic health service which not aiming in limiting family members, but aiming in providing married couples in better information and tools for building well health family (2).

The maternal and infantile mortality rates are higher in low income communities as compared to high income communities all over the world. It was shown that inter-pregnancy interval of less than two years which is prevalent in developing world is the main risk factor of high maternal morbidity and mortality (3,4). In developed countries, the marriage, pregnancy and birth occurred in older age population than developing countries that are related to educational, level, socioeconomic status and cultural reasons which lead to high use of family planning in developed world. Generally, the family planning health services are useful in preventing younger and older age pregnancy, elongating inter-pregnancy interval, reducing high risk pregnancy and lowering maternal mortality rate (5). The unmet need for contraception is defined as a percentage of women at child-bearing age who had the desire in stopping or postponing pregnancy but had no accessibility to contraceptive method in preventing pregnancy (6). It is implemented as an indicator for gap between demand for contraceptives and contraceptive use (6,7). The preferences of women in different contraceptive methods are variable between different societies globally and these preferences are affected by many risk factors (8). Providing new contraceptive methods is essential in encouraging the couples, however, it is important to learn them about the benefits and adverse effects of each method before using them (9). High proportion of unplanned pregnancies in developing countries are related to either contraceptive method failure or discontinuation of contraceptive method for many reasons (10). The discontinuation of contraceptive methods is caused mainly by either failure of contraceptive method in preventing unplanned pregnancy or from adverse effects of this method which lead to poor quality of life and facilitate the discontinuation (11). Moreover, many authors found that women's experience in side effects of contraceptive methods is the common reason high unmet need for contraception in many populations (12). The contraceptive methods are divided either into modern methods like mechanical barriers (condoms, diaphragms and cervical cap) hormonal contraceptives (oral, injectable, transdermal, vaginal ring and implants) intrauterine device or traditional methods like rhythm, withdrawal, fertility awareness-based methods, lactation and folk methods. Additionally, the emergency contraception and permanent methods are also widely used by women(13).

In Iraq, the population development is complicated and facing different challenges related to socioeconomic, cultural and religion factors. Various national factors such as high population growth rate, high younger age population prevalence, increased migration from rural to urban areas, high illiteracy prevalence are increasing the burden on Iraqi national family planning program (14). According to United Nations Population Division data, the Iraqi population has increased four-fold over the last 50 years, doubling during the last 25 years (from 10 million in 1970, to 20 million in 1995, to about 40 million in 2020). Inversely, increase in use of contraceptive methods in general was not parallel to population increase; the use of modern contraceptive methods has stagnated since 2012 (28-36%) and the use of traditional methods was ranged between (11-17%). The unmet need for family planning in Iraqi population is about (25%), while satisfied needs for modern contraceptives was about (53.8%) (15). Generally, the Iraqi women especially in Kurdistan region and rural areas preferred use of traditional methods (16). This study aimed to assess the preferences of women at reproductive age toward contraceptive methods in Karbala city.

#### 2. PATIENTS and METHODS

The current study design was a descriptive cross sectional study that carried out in family planning unit of four primary health care care centers (Al Abasia Algharbia, Al Mulhuq, Al Muathafine and Al Wafaa primary health care centers) at Karbala city- Iraq through duration period of six months from first of February to 31st of July, 2022. The study population was all women presented to PHCCs for family planning services during study duration. Married women in reproductive age using family planning method at time of study were the inclusion criteria. Exclusion criteria were younger or older age women, unmarried women, history of hysterectomy and refuse to participate. The ethical considerations were implemented according Helsinki Declaration regarding ethical approval of Health authorities; oral informed consent of selected women and confidentiality of data. A convenient sample of two hundred women was selected after eligibility to inclusion and exclusion criteria.

The data were collected by the researchers directly from eligible women and fulfilled in a prepared questionnaire. The questionnaire was designed by the researchers. The questionnaire included the following information: general characteristics of women (age, educational level and economic status), marital and gestational characteristics of women (marriage duration, number of pregnancies, number of parities, previous miscarriage, number of living children and predominant delivery mode) and family planning methods characteristics (preferred family planning methods, family planning types and source of family planning methods). The recently used family planning method was considered as the preferred family planning method. The economic status was classified according to family monthly income; low <500,000 IQ Dinar, moderate 500,000-1500,000 IQ Dinar, high>1500,000 IQ Dinar.

The data collected were analyzed statistically by Statistical Package of Social Sciences software version 22. Chi square and Fishers exact tests were applied for categorical variables accordingly. Level of significance (p value) was regarded statistically significant if it was 0.05 or less.

#### **3. RESULTS**

This study included one hundred women at reproductive age presented with mean age of (32.8 years) and ranged between 20-49 years; 28% of them were at age group of 20-29 years, 38% of them were at age group of 30-39 years and 34% of them were at age group of 40-49 years. The educational level of women was distributed as followings; illiterate (30%), primary level (20%), secondary level (30%) and college/institute (20%). Low economic status was represented by 40% of women, intermediate economic status was represented by 35% of them and high economic status by 25% of women, (Table 1). The marriage duration of women was commonly ten years and more (75%), while 53% of them had previous 1-4 pregnancies and 47% of them had previous 5 and more pregnancies. Grand multi-parities were observed in 38% of women, while the previous miscarriage was reported in 17% of them. Number of living children was five and more in 38% of women, while the vaginal delivery was the predominant delivery mode (64%), (Table 2). The common family planning method used by women was oral contraceptive pills (30%), followed by; intrauterine contraceptive device (22%), barriers like condoms and cervical caps (18%), withdrawal (18%), injectable contraceptives (8%) and rhythm method (4%). In general, 22% of women

preferred traditional contraceptive methods, while 78% of them preferred modern contraceptive methods. The common source of family planning methods was primary health care center (54%), followed by; private clinic (32%) and private pharmacy (14%), (Table 3). There was a highly significant association between increased age of women and preferring use of traditional family planning methods (p<0.001). A highly significant association was observed between high educational level of women and preferring use of traditional planning methods (p<0.001). No significant differences were observed between women preferred traditional methods and women preferred modern methods regarding economic status of women (p=0.08), (Table 4).

No significant differences were observed between women preferred traditional methods and women preferred modern methods regarding marriage duration (p=0.8), number of pregnancies (p=0.45), number of parities (p=0.09), previous miscarriage (p=0.35) and number of living children (p=0.1). (Table 5)

Variable		No.	%
Age (year)	20-29	56	28.0
	30-39	76	38.0
	40-49	68	34.0
	Mean (SD): 32.8 (10.9)		
Educational level	Illiterate	60	30.0
	Primary level	40	20.0
	Secondary level	60	30.0
	College/institute	40	20.0
Economic status	Low	80	40.0
	Intermediate	70	35.0
	High	50	25.0

Table 1. General characteristics of women using FP.

SD: standard deviation of mean

Variable		No.	%
Duration of marriage	<10	50	25.0
	≥10	150	75.0
Growidity	1-4 gravida	106	53.0
Gravidity	≥5 gravida	94	47.0
Parity	1-4 para	124	62.0
	≥5 para	76	38.0
Previous miscarriage	Yes	34	17.0
	No	166	83.0
Number of living children	1-4 children	142	71.0
	≥5 children	58	38.0
Predominant mode of	Vaginal delivery	128	64.0
delivery	Cesarean section	72	36.0

## Table 2. Marital and gestational characteristics of women using FP.

 Table 3. Characteristics of family planning methods.

Variable		No.	%
Family planning methods	OC	60	30.0
	IUCD	44	22.0
	IC	16	8.0
	Barriers	36	18.0
	Withdrawal	36	18.0
	Rhythm	8	4.0
Family planning types	Traditional	44	22.0
	Modern	156	78.0
Source of family planning methods	РНСС	108	54.0
	Private clinic	64	32.0
	Private pharmacy	28	14.0

Variable		Family planning types				
		Traditional (n=44)		Modern (n=156)		P. value
		No.	%	No.	%	
Age (year)	20-29	4	9.1	52	33.3	
	30-39	16	36.4	60	38.5	<b>&lt;0.001</b> <sup>S</sup>
	40-49	24	54.5	44	28.2	
Level of educational	Illiterate	8	18.2	52	33.3	
	Primary level	2	4.5	38	24.4	<0.001 <sup>s</sup>
	Secondary level	4	9	56	35.9	<0.001
	College/institute	30	68.3	10	6.4	
Economic status	Low	24	54.5	56	35.9	
	Intermediate	12	27.3	58	37.2	0.080 <sup>NS</sup>
	High	8	18.2	42	26.9	

Table 4. Distribution of women's general characteristics according to family planning types.

S: Significant, NS: Not significant.

Table 5. Distribution of fertility and gestational characteristics according t	to family
planning types.	

		Family planning types				
Variable		Traditional (n=44)		Modern (n=156)		P. value
		No.	%	No.	%	
Duration of	<10	10	22.7	40	25.6	0.80 <sup>NS</sup>
marriage	≥10	34	77.3	116	74.4	0.80
Gravidity	1-4 gravida	26	59.1	80	51.3	0.45 <sup>NS</sup>
	≥5 gravida	18	40.9	76	48.7	
Parities	1-4 para	22	50	102	32.1	0.09 <sup>NS</sup>
	≥5 para	22	50	54	46.1	0.09
Previous miscarriage	Yes	10	22.7	24	15.4	o o z NS
	No	34	77.3	132	84.6	0.35 <sup>NS</sup>
Number of living children	1-4 children	36	81.8	106	67.9	0.10 <sup>NS</sup>
	≥5 children	8	18.2	50	32.1	0.10

S:Significant, NS: Not significant.

#### **4. DISCUSSION**

The evaluation of national family planning program is important in detection of suitable and preferable contraceptive and reduction of unmet need nationally and globally. Preferences of family planning methods are affected by multiple factors related to women and availability of these methods (17).

The current study found that common family planning method used by women was oral contraceptive pills (30%), followed by; intrauterine contraceptive device (22%), barriers like condoms and cervical caps (18%), withdrawal (14%), injectable contraceptives (8%) and rhythm method (8%). These findings are similar to reports of Tull's study (18) in Iraq which documented that oral contraceptive pills are the most common preferred contraceptive methods used by women at reproductive age in Iraq and Kurdistan region. In same direction, Alhagbaker et al (19) study in Erbil city/Iraq found that women at reproductive age were preferring oral contraceptive pills although their side effects. Inconsistently, Aldabbagh et al (20) cross sectional study in Iraq which reported that common preferable family planning method among Iraqi women living in Baghdad (Capital) was the contraceptive device, followed by; oral contraceptive pills and barrier methods. Also, Öztürk İnal et al (21) study in Turkey reported that intrauterine contraceptive device and oral contraceptive pills were the common preferable family planning methods by Turkish women at reproductive age. These differences are attributed to differences in socioeconomic status, cultural and regional differences. However, Ali et al (22) study in Switzerland revealed that family planning program in low and middle income countries should support the polices that facilitate the availability of modern types of oral contraceptive pills and intrauterine devices and changing the legislations that inhibit their publicity distribution. Our study showed that 22% of women preferred traditional contraceptive methods, while 78% of them preferred modern contraceptive methods. This finding is close to results of Tsehaye et al (23) study in Ethiopia which found that 91.5% of women used modern contraceptive methods and 8.5% of them used traditional family planning methods. Inconsistently, Al Kindi and Al Sumri cross sectional study (24) in Oman reported that traditional family planning methods (withdrawal and lactation) were the common family planning methods used by women. The differences in preferences of women in family planning methods might be attributed to many factors

related to socioeconomic status, cultural, religion and other characteristics related to study methodology and sample size. Our study showed that common source of family planning methods was the primary health care center. This finding coincides with results of Burnham et al (25) household national survey study in Iraq which reported that the primary health care centers are the main sources in providing contraceptive methods for women, while the private clinics are less prevalent.

In present study, there was a highly significant association between increased age of women and preferring use of traditional family planning methods (p<0.001). This finding is consistent with results of Ram et al (26) cross sectional study in India which found that preference toward use of traditional family planning methods increased with increase age of women more than 35 years. Our study showed also a highly significant association was observed between high educational level of women and preferring use of traditional planning methods (p<0.001). Similarly, Rabiu and Rufa'i cross sectional study (27) in Nigeria reported a statistically significant association between educational level of women and their preferences toward traditional family planning methods. However, another systematic review study carried out in Burkina Faso by Bationo et al (28) revealed that lack of knowledge, side effects of modern family planning methods, lack of availability are the main factors related to use of traditional family planning methods.

### **5. CONCLUSIONS**

The common preference toward family planning methods of Iraqi women in Karbala city is oral contraceptive pills. The prevalence of women using traditional family planning methods is close to national and international literatures. The common risk factors related to use of traditional methods in present study are women's age and their educational level. This study recommended more changes in national policy regarding availability contraceptive methods in private clinics and pharmacies. Moreover, further national large sized studies on preferences of women toward family planning methods must be supported.

#### **Ethical Clearance:**

Ethical issues were taken from the research ethics committee. Informed consent was obtained from each participant. Data collection was in accordance with the World Medical Association (WMA) declaration of Helsinki for the Ethical Principles for Medical Research Involving Human Subjects, 2013 and all information and privacy of participants were kept confidentially.

Conflict of interest: Authors declared none

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