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Knowledge and Practices Towards Family Planning Among Women Attending Tikrit Teaching Hospital, Iraq

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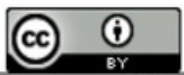
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ABSTRACT

Background: Family planning is the key to reduce maternal mortality and upturning population health and managing fertility rate. Despite its significance, there exists a disparity between use and knowledge of family planning methods, especially in developing countries. Given the fact that determinants of family planning utilization serve as stake holders in maternal and child health area it has become very important to develop some most effective interventions for reproductive health.

Objectives: This study was conducted to evaluate the level of knowledge, attitude and practice towards family planning methods among women in Tikrit city\ Iraq as well as to identify some of barriers deterring their use.

Methods: A cross sectional study conducted on 200 reproductive age women who presented to Tikrit Teaching Hospital. A pretested and structured questionnaire was used to collect data on demographic variables, awareness, attitude and practice of family planning methods. Statistical analysis was carried out using SPSS version 25.0, which consisted of descriptive statistics and chi-square tests.

Results: The majority of participants were 25-49 years old (84%), completed primary school education (41%) and housewives mostly (84.5%). They had awareness about family planning (96%) but the utilization of FP was less (66%). The predominant form of contraception was oral contraceptives (45%). Age, parity and occupation were significantly associated with family planning utilization, there was no significant association between socioeconomic status, educational level and place of residence.

Conclusion: The study indicates a discrepancy between the use of and knowledge about contraceptive methods in Tikrit city. Factors that were significantly associated with utilization of family planning were age, occupation and number of children. These results further emphasize the need for selection interventions that promote linkage through improving the awareness-service utilization gap, particularly among hard-to-reach groups.

INTRODUCTION

Addressing unmet requirement for family planning (FP) to avoid unintended pregnancies is a high concern for women's health, and is an effective method to reduce both infant and maternal mortality and morbidity [1]. FP is defined as the ability of couple to attain their proper number of children in a family, the timing of their births and the interval between children through the use of family planning methods [2].

Modern family planning procedures include tubal ligation, oral contraceptives, vasectomy, depot injections, the intrauterine contraceptive device (IUCD), male and female condoms, and sub dermal implants, [3]. The extended postpartum interval is the first 12 months after childbirth, which is the very important period for using many interventions, involving the provision of family planning (FP) procedures [2]. As specified by the World Health Organization (WHO) technical consultation committee for more desirable maternal and child health outcomes, gap of at least 2 years after a live birth is recommended before getting another pregnancy [4].

Key barriers to contraceptive utilize include insufficient knowledge of appropriate FP methods, anxiety of side effects, and misconceptions about contraception [1]. Many of those who get Pregnancy are at risk of death, disability and lower employment and educational potentials, for this reason decreasing the number of unintended Pregnancies could avert 57% of the child deaths and 60% of maternal deaths [5].

Family planning has many health advantages to women and the child as it gives rise to birth spacing, reduces the rate of elective abortions, as well as lowering the neonatal and maternal mortality rate

related to unintended pregnancy [6]. Improving availability and accessibility of family planning interventions and services to married women, in addition to men, is essential to lowering the fertility rate, delay first pregnancies, as well as get better pregnancy out- comes, child and maternal health and general family's health and social wellbeing [6].

Social studies approximate that nearly 222 million couples do not apply any type of contraceptives because of the lack of the required means and knowledge at the same time these couples desire to limit their family size [7]. In last years, the need for such studies to interpret the factors determining the family planning receipt and practices by specific communities has been felt, so that more definite knowledge can be obtained about factors determining family planning acceptance, which can then be utilized for developing appropriate program for them.

AIM OF THE STUDY

The aim of this study is to evaluate the knowledge relating to family planning and the application of contraceptives among the women in Tikrit city and to find out the barriers for contraceptive use among them.

The objectives are to:

1. Find out the extent of Tikrit women's knowledge of family planning
2. Know the source of information for the women of Tikrit about family Planning.
3. Identify the barriers that prevent women from obtaining family planning.
4. Explain the frequency of using family planning among Tikrit women.

5. Find out the association between demographic variables and family planning among participants.

PATIENTS AND METHODS

STUDY DESIGN AND SETTING

A cross-sectional research plan was conducted among females in reproductive-age attending Tikrit Teaching Hospital from November 2023 to March 2024.

STUDY POPULATION AND SAMPLING

The study population was 200 women in reproductive age attending Tikrit Teaching Hospital. Data collection was carried out through a self-administered questionnaire personally.

DATA COLLECTION

A structured questionnaire was formulated following an exhaustive literature review, containing parts addressing pertinent details related to the study objectives.

ETHICAL CONSIDERATION

The study was conducted in fulfillment with ethical principles. Sharing was voluntary, and confidential. Members were free to cancel from the study at any point without giving a reason. The study aimed to be useful and harmless to the participants.

STATISTICAL ANALYSIS

Data analysis was carried out using SPSS version 25.0. Descriptive statistics were applied to summarize categorical variables. Chi Square tests were used to assess association between categorical variables. A significance level of $p < 0.05$ and a 95% confidence interval were used.

RESULTS

DEMOGRAPHIC DISTRIBUTION OF STUDY PARTICIPANTS

The study included 200 participants as shown in Table 1, predominantly aged between 25-49 years (84%). The majority of participants were educated up to primary school level (41%), and the occupation primarily comprised housewives (84.5%).

AWARENESS AND PERCEPTION OF FAMILY PLANNING:

Almost all participants (96%) reported awareness of family planning, as shown in Table 2. Two-thirds (66%) of participants reported previous usage of family planning methods (Table 2). The majority (84%) believed that family planning methods could prevent pregnancy, yet only 47.5% perceived them as safe for health.

Figure 3 shows that friends/relatives being the most common source of information (49%).

Figure 4 shows that the most commonly used method was oral contraceptives (45%), followed by a combination of methods (26%).

Figure 5 shows that fear of the side effects (27.5%) is the most common cause that prevent them from using contraceptives.

FACTORS INFLUENCING FAMILY PLANNING USAGE:

There was a significant association between age and family planning usage ($p < 0.001$), with higher usage observed among participants aged 25-49 years. Participants with 0-5 children were more likely to have used family planning methods compared to those with 10 or more children ($p = 0.002$). Housewives constituted the largest group using family

planning methods (85.6%), followed by employees (14.4%) and others (0%). No significant association was found between socioeconomic status and family planning usage ($p = 0.628$). There was no significant association between education level and family planning usage ($p = 0.519$). There was no notable difference in family planning utilization between people living in cities and rural areas ($p = 0.427$).

DISCUSSION

This study reveals factors contributing in family planning utilization of contributors (effects based on distribution, perception and awareness). The high knowledge level in the participants found (96%) is consistent with a similar high awareness about family planning documented in research done on Nigeria. [8] Friends and family members emerge as the main source of information, this supports earlier studies that have previously underscored the impact of social networks in dissemination of reproduction health information [9, 10]. Nevertheless, it is important to note that while awareness is high there remains a distinction between awareness and perception particularly with regard to the safety of family planning methods.

According to the results in this survey there are a large number of participants who they have been using family planning methods, and oral contraceptives (45%) is the most common method used. This observation was also similar to research conducted in Saudi Arabia where contraceptive pills were the prevalent FP methods have been used 16 (36.3%).

Nevertheless, it is noteworthy that 50% of subjects had concerns over safety of family planning methods. This knowledge may be a barrier of those considering the use/seeking services and emphasizes the

importance of comprehensive counseling & education programs to dispel misinformation and alleviate concerns about side effects. Age appeared to be a factor that significantly influenced the use of family planning, with greater utilization amongst participants aged 25-49 years [12].

Women in their late childbearing years are anticipated to be even more likely to have been exposed to contraceptive methods. Such an assumption could be a reasonable one given the fact that younger women could least likely to be predisposed to limiting their family size, while the older ones might have limited exposure to contraceptive alternatives. Furthermore, the number of children had an association with family planning usage and those that had few children showed higher using rates. This addresses the role of family size in contraceptive behavior and decisions. Though it refutes the outcome of study by Rabiou A. et al in Kano (2018) where no association was found between parity and utilization of contraception methods [12].

The contributors' occupation was significantly related to the use of family planning methods, in which housewives were more preponderant. This finding could be indicated as women with flexible schedules, like housewives, may find it is easy to use family planning service in compare with employed. Nevertheless, this is not to be relied upon for the family planning use in some occupational groups, and points out the need of focused intervention toward neglected group.

Despite expectations, no significant association was detected between family planning using and a range of socio-economic status, level of education or rural/urban living. These results challenge widely held beliefs about the impact of SES

on use of contraceptives such as also reported in a study conducted in Ethiopia (2023) which found that Women who received no formal education or had only primary education been more prone to high-risk fertility behavior than women with a higher level of education [13].

CONCLUSION

Findings suggest a big divide between the high level of awareness (96%) and only moderate level (66%) utilization of FP methods among the General participants that requires intervention to bridge the gap for effective utilization. Utilization of family planning is significantly associated with age and number of children with higher net use among 25 to 49 years and those with 0-5 numbers of children. Understand the demographic trends is important for understanding what types of intervention can be targeted for different family size, age groups. Occupation particularly housewives is a significantly determining factor for the use of family planning.

RECOMMENDATIONS

1. Targeted Outreach and Education: Conduct targeted outreach and education enterprise to increase awareness on family planning methods, in an effort to promote informed decision making particularly among those with low using rates.
2. Increased Availability and Affordability: Increase the availability of family planning services specifically in rural areas, through increase of service points/ outlet for contraceptive services offered as well by guaranteeing a variety choice and providing monetary support for low-income people.

3. Develop tailored support services and intercessions that address the unique needs and preferences of women from different demographic groups, including homemakers, through counseling, support staff, and resources to enable human being to choose approaches consistent with their vision of their reproductive future.

CONFLICT OF INTEREST:

NONE

REFERENCES

- 1- Dev R, Woods NF, Unger JA, Kinuthia J, Matemo D, Farid S, et al. Acceptability, feasibility and utility of a mobile health family planning decision aid for postpartum women in Kenya. *Reprod Health*. 2019;16(1). doi:10.1186/s12978-019-0767-9.
- 2- Andualem G, Aklilu A, Belay G, Feyisa W, Alemnew F. Factors associated with utilization of modern postpartum family planning methods during the extended postpartum period among mothers who gave birth in the last 12 months at Injibara town, Northwest Ethiopia: a cross-sectional study. *Contracept Reprod Med*. 2022;7(1). doi:10.1186/s40834-022-00191-y.
- 3- AlHamawi R, Khader Y, Al Nsour M, AlQutob R, Badran E. Family planning interventions in Jordan: a scoping review. *Womens Health (Lond)*. 2023; 19:17455057231170977.
- 4- Tran NT, Gaffield ME, Seuc A, Landoulsi S, Yamaego WME, Cuzin-Kihl A, et al. Effectiveness of a package of postpartum family planning interventions on the

- uptake of contraceptive methods until twelve months postpartum in Burkina Faso and the Democratic Republic of Congo: the YAM DAABO study protocol. BMC Health Serv Res. 2018;18(1). doi:10.1186/s12913-018-3199-2.
- 5- Bellizzi S, Sobel HL, Obara H, Temmerman M. Underuse of modern methods of contraception: underlying causes and consequent undesired pregnancies in 35 low- and middle-income countries. Hum Reprod. 2015;30(4):973-86.
 - 6- M'rinkanya PM, Mutunga-Mwenda C, Karonjo J. Determination of level of knowledge on modern methods of family planning among women of reproductive age (18-49 years) at Mathare North Health Center in Nairobi County, Kenya. Open J Nurs. 2021;11:407-21. doi:10.4236/ojn.2021.115035.
 - 7- Machiyama K, Casterline JB, Mumah JN, Huda FA, Obare F, Odwe G, et al. Reasons for unmet need for family planning, with attention to the measurement of fertility preferences: protocol for a multi-site cohort study. Reprod Health. 2017;14(1):23. doi:10.1186/s12978-016-0268-z.
 - 8- Olubodun T, Balogun MR, Ogunsilu EA. Awareness and practice of family planning among women residing in two rural communities in Ogun State, South West Nigeria. Ann Afr Med. 2020;19(4):246-51.
 - 9- Jones K, Baldwin KA, Lewis PR. The potential influence of a social media intervention on risky sexual behavior and Chlamydia incidence. J Community Health Nurs. 2012;29(2):106-20.
 - 10- Del Castillo JA, del Castillo-López ÁG, Dias PC, García-Castillo F. Social networks as tools for the prevention and promotion of health among youth. Psicol Reflex Crit. 2020;33:13.
 - 11- Mahfouz MS, Elmahdy M, Ryani MA, Abdelmola AO, Kariri SA, Alhazmi HY, et al. Contraceptive use and the associated factors among women of reproductive age in Jazan City, Saudi Arabia: a cross-sectional survey. Int J Environ Res Public Health. 2023;20(1):843.
 - 12- Rabiou A. The role of traditional contraceptive methods in family planning among women attending primary health care centers in Kano. Ann Afr Med. 2018;17(4):189-95.
 - 13- Woldeamanuel BT, Gessese GT, Demie TG, Handebo S, Biratu TD. Women's education, contraception use, and high-risk fertility behavior: a cross-sectional analysis of the demographic and health survey in Ethiopia. Front Glob Womens Health. 2023;4:1071461

TABLES

Table 1. Demographic Distribution of Study Participants

Demographic Category	Frequency	Percent
Age		
15-24	32	16.00%
25-34	84	42.00%
35-49	84	42.00%

Total	200	100.00%
Level of Education		
Not educated	66	33.00%
Primary school	82	41.00%
Secondary school	27	13.50%
University	25	12.50%
Total	200	100.00%
Occupation		
Employee	26	13.00%
Housewife	169	84.50%
Other	5	2.50%
Total	200	100.00%
Number of Children		
0-5	153	76.50%
5-10	42	21.00%
More than 10	5	2.50%
Total	200	100.00%

Total	200	100.00%
Have you ever used family planning method?		
No	68	34.00%
Yes	132	66.00%
Total	200	100.00%
Do you think it can prevent you from getting pregnant?		
No	32	16.00%
Yes	168	84.00%
Total	200	100.00%
Do you think FP is safe for your health?		
No	105	52.50%
Yes	95	47.50%
Total	200	100.00%

Table 2. Knowledge, Usage, and Perception of Family Planning Methods

Question	Frequency	Percent
Have you heard about family planning?		
No	8	4.00%
Yes	192	96.00%

Table 3. Association between Demographic Variables and Family Planning Usage

Variables	Have you ever used family planning method		Chi-Square <i>p</i> value
	No	Yes	
Age			0.000
15-24	20 (29.4%)	12 (9.1%)	
25-34	29 (42.6%)	55 (41.7%)	
35-49	19 (27.9%)	65 (49.2%)	
Socioeconomic State			0.628
High	4 (5.9%)	6 (4.5%)	
Low	14 (20.6%)	21 (15.9%)	
Medium	50 (73.5%)	105 (79.5%)	
Occupation			0.006
Employee	7 (10.3%)	19 (14.4%)	
Housewife	56 (82.4%)	113 (85.6%)	
Other	5 (7.4%)	0 (0.0%)	

Number of Children			
0-5	62 (91.2%)	91 (68.9%)	0.002
5-10	5 (7.4%)	37 (28.0%)	
More than 10	1 (1.5%)	4 (3.0%)	
Level of Education			0.519
Not educated	18 (26.5%)	48 (36.4%)	
Primary school	31 (45.6%)	51 (38.6%)	
Secondary school	9 (13.2%)	18 (13.6%)	
University	10 (14.7%)	15 (11.4%)	
Residence			0.427
Rural	37 (54.4%)	64 (48.5%)	
Urban	31 (45.6%)	68 (51.5%)	

FIGURES

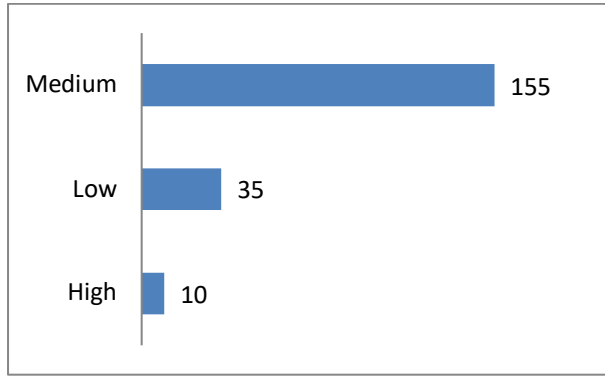


Figure 1. Socioeconomic Status Distribution

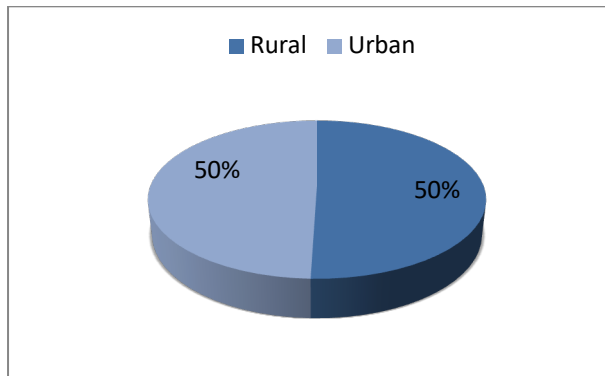


Figure 2. Residency Distribution

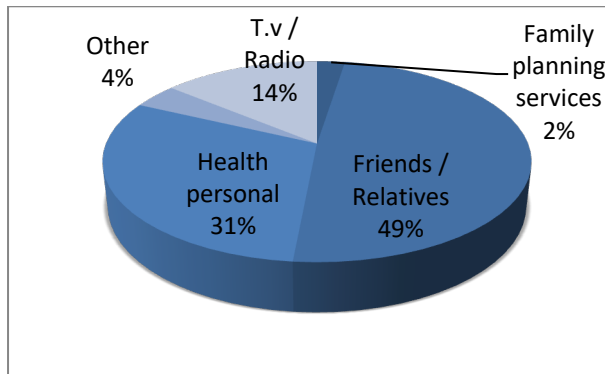


Figure 3. Family Planning Source of Information

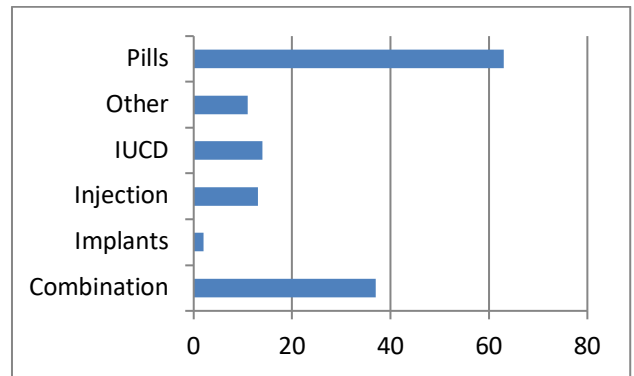


Figure 4. Methods of Family Planning

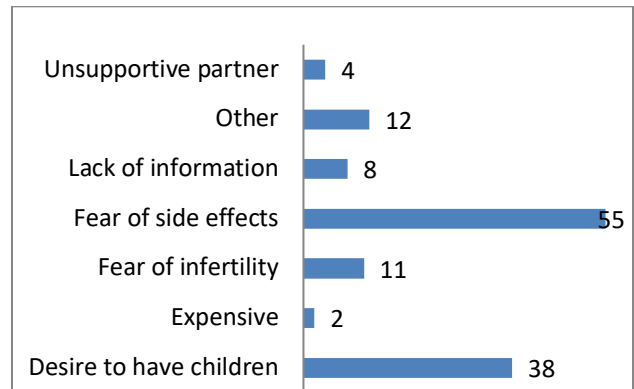


Figure 5. Causes that Prevent Them from Using Contraceptive Methods