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Research Article

FAMILY PLANNING AND LONG ACTING HORMONAL CONTRACEPTIVE: KNOWLEDGE, ATTITUDE AND PRACTICE OF THE PATIENTS ATTENDING THE OMDURMAN MATERNITY HOSPITAL, SUDAN

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ABSTRACT

Background: Family planning is recognized not only as a key intervention for improving the health of women and children, but also as a human right. Long-acting reversible contraception, a method that requires administering less than once per cycle or month, is considered the safest method of long term contraception. The good knowledge, positive attitude and correct practice towards long acting hormonal contraceptive is important determinant in successful outcome. The present study was conducted to determine the knowledge attitude and practice towards family planning and long acting hormonal contraceptive among the participants of Sudan.

Material and Methods: This was a descriptive, cross sectional, hospital based study conducted during the period from March to August 2019. All women who were attending family planning clinic in Omdurman Maternity Hospital and those who attended the family planning clinic and those who attended the clinic for LAHC insertion and removal were the study population. Sample using the software Epi info with 95 % confidence interval. Sample size calculated was 101 cases. The sample was collected by random sampling. A Pretested validated and structured questionnaire was administered to collect the data. The data sheet contained demographic information of the participants, the questionnaires related to knowledge, awareness and attitude towards family planning using the long acting hormonal contraception. The data were entered and analyzed by using SPSS version 21. Descriptive statistics were presented using counts, proportions (%), mean ± standard deviation whenever appropriate. A p-value cut off point of 0.05 at 95% CI was used to determine statistical significance.

Results: A total of 101 women participated in the survey with a response rate of 100%. The vast majority of the participants (80.2%) were working Thirty nine women in this study (38.6%) were married for less than five years but more than one year, 33 women (32.7%) were married between 6 and 10 years. The vast majority of the participants acknowledged that they heard about long acting hormonal contraceptive. The majority of the participants (64.4%) had good knowledge about the LAHC which was significantly more among the participants with age group of 26-35 years (P= 0.043), among the postgraduate participants (P=0.032).and among the participants living in Bahri area (P=0.045). Almost forty nine percent of the participants (48.5%) had negative attitude towards the family planning and long acting hormonal contraceptive. As age increased the positive attitude towards family plan 8ing and LAHC also increased (P= 0.004). The positive attitude was maximum among the post graduate participants (P=0.023), among the working mother (P=0.032)and those with 1-3 children (.P=0.044). Nearly thirty five percent of the participants were using it regularly. Fear of side effect, willingness to be pregnant and refusal by the husband were the main reason of not using it..

Conclusion: The present study has shown that though majority of participants knew about the long acting hormonal contraceptive but only one third of them were using it regularly. Significant number of the participants had negative attitude towards the use of long acting hormonal contraceptive. Majority of the participants in the present study preferred five and more than five children and birth spacing of 3 years between the 2 children. There is need of comprehensive family planning and LAHC awareness programme to teach the patients about the benefits of LAHC and family planning.

INTRODUCTION

Contraception, birth control or family planning is not a new phenomenon. Family planning is recognized not only as a key intervention for improving the health of women and children, but also as a human right. The basis for action in family planning must enable couples and individuals to decide freely and responsibly the number and spacing of their children, to have the information and means to do so, to endure informed choices and to make available a full range of safe and effective methods.

Advances in scientific knowledge, research and development in recent decades have resulted in an increasingly wider choice of new contraceptive methods and improvement of safety and effectiveness of existing methods. However the full range of modern family planning methods still remains unavailable to at least 350 million couples worldwide.[1]To meet their needs and close the existing gab in quality services, family planning programs and contraceptives' supplies will need to expand rapidly over the next several years, and information will need to be disseminated about new contraceptive development.

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Over the past 50 years, there have been significant advances in the development of new contraceptive technologies. Contraception can be divided into two broad categories: hormonal and non-hormonal. Long-acting reversible contraception is defined as methods that require administering less than once per cycle or month. Included in the category of long acting reversible contraception are the copper intrauterine devices (non-hormonal) and three hormonal methods: progestogen-only methods of contraception (intrauterine system, injectable and the implants).

Although intrauterine devices (IUDs) and sub dermal implants (SDI) are recommended as first- line contraception by the American College of Obstetrics and Gynecology, these methods of long-acting reversible contraception are underutilized. Some concerns regarding their use included cost of placement, side effects, and perception of frequent early removal.[3].

The low failure rates, ease of use and limited contraindications make long acting reversible contraception an ideal form of contraception for many women. Recent studies have shown high rates of satisfaction and continuation with long acting reversible contraception methods. Most women in the United States are using less effective methods, such as oral contraceptive pills and male condoms. However, we strongly believe that IUDs and implants should be offered as first-line contraception for most women. Only when these methods have been excluded should the patient/clinician consider less effective methods of contraception.[4].

No contraceptive is without some drawbacks, and the side effects and risks of these methods should always be discussed with a potential user before commencement. This includes the fact that any protection offered against sexual infection relates only to a relative reduction in the incidence of Pelvic Inflammatory Disease. Fuller protection requires the continued use of condoms. This advice is of particular importance in adolescents, who statistically may be at greater risk. [5]

In 2003-04, about 8% only of women aged 16–49 years in Great Britain used long acting reversible contraception as a method of contraception.[1] A study done in Ethiopia (2014) showed that 20% of Ethiopian women in reproductive age were using long acting contraceptive methods. [2]According to Sudan Household Survey (2010), only 9% of Sudanese women were using contraceptive methods and only 0.5% of them were using the long acting hormonal contraception. [1]A UK study assessed women's knowledge of the effectiveness of various contraceptive methods and of the risks of thrombosis associated with hormonal contraceptives. Women (n=45) tended to underestimate the effectiveness of hormonal contraceptives, particularly implants, and to overestimate the risk of thrombosis associated with hormonal contraceptives.[7] Many were more concerned about the adverse effects (especially bleeding irregularities and weight gain) than about effectiveness. A US questionnaire survey (n=249, aged 12–20 years) reported that knowledge of Norplant among the general adolescent population was poor. However, young women who were using Norplant were 11 times more likely than those using other types of contraceptive methods to be more knowledgeable about Norplant, having received additional counseling from healthcare providers.[8]

In Sudan the use of family planning is limited. According to Sudan household health survey 2006; only 7.6% of Sudanese women age 15-49 were using family planning methods. This number increased to 9% in 2010 with only 0.5% of women using the long acting hormonal contraception methods.[6]

This study was intended to evaluate the knowledge, attitude and satisfaction with the practice of long acting hormonal contraception, frequency, and reasons behind discontinuation in a family medicine setting. It also evaluated the factors associated with use of long acting hormonal contraception methods among sexually active married women attending family planning clinic in Omdurman Maternity Hospital between March and August 2018.

MATERIAL AND METHODS

This was a descriptive, cross sectional, hospital based study conducted during the period from March to August 2019. This study was conducted in Omdurman Maternity Hospital (Sudan), a public hospital specializing in labor, delivery, and women's health particularly in the mother and child health. The family planning clinic's staffs are composed of well trained and experienced sisters led by women' health specialist. The family planning clinic received 30 women per day, 5 days a week. This was a descriptive, cross sectional, hospital based study conducted during the period from March to August 2019. All women who were attending family planning clinic in Omdurman Maternity Hospital and those who attended the family planning clinic and for LAHC insertion and removal were the study population. Sample was collected using total coverage during the researcher's three per week visits to the study area in the defined study period and was calculated by using the software Epi info with 95 % confidence interval with the presumption that 54% of the participants must be using the Long Acting hormonal contraceptive (Ethiopian study) with the lower range of 45%. Sample size calculated was 101 cases. The sample was collected by random sampling from the list of patients visited the clinic during the specific time period. A Pretested validated and structured questionnaire was administered to collect the data. Face to face interview during the researcher three per week visits to Omdurman Maternity Hospital. The data sheet contained demographic information of the participants, the questionnaires related to knowledge, awareness and attitude towards family planning using the long acting hormonal contraception. The data were entered and analyzed by using the statistical package for social sciences, version 21 (SPSS, Chicago, IL, USA).Descriptive statistics were presented using counts, proportions (%), mean ± standard deviation whenever appropriate. The comparison study was done by using multivariate analysis/binary logistic regression. A p-value cut off point of 0.05 at 95% CI was used to determine statistical significance. Ethical clearance was obtained from ethical committee of Sudanese Medical Specialization Board, hospital acceptance and patient informed concent

RESULTS

Socio-demographic characteristics of the respondents

A total of 101 women participated in the survey with a response rate of 100%. Majority of the participants (49.5%) were in the age group of 26-35 years followed by the age group of 15-25 years (33.7%) and more than 35 years (16.8%). In terms of parity, the majority (64.4%) of respondents had 4-6 children, followed by 29.7% of women who had 1-3 children, 5% had more than six children and only one women with no child . The vast majority of the participants (80.2%) were

working .The majority of the respondents (66.3%) were currently living in Omdurman. In terms of education, 41.6% of respondents were graduated from universities, 30.7 % studied till secondary school level and only 2% were uneducated. Thirty nine women in this study (38.6%) were married for less than five years but more than one year, 33 women (32.7%) were married between 6 and 10 years. A minority of 3% and 5% were married for less than three and more than five years respectively. The details of the demographic characteristics of the participants are shown in table 1.

Table 1 Showing the demographic characteristics of the participants.

Variables	Number	Percentage
Age:		
Age groups:		
15-25 years	34	33.7
26-35 years	50	49.5
>35	17	16.8
Parity		
1-3 children	65	64.4
4-6 Children	30	29.7
>6 children	6	6.0
Educational qualification		
Uneducated	2	2
Primary	22	21.8
Secondary	31	30.7
Graduate	42	41.6
Post graduate	4	4.0
Occupation		
Housewife	20	19.8
Working	81	80.2
Location		
Omdurman	67	66.3
Bahri	17	16.8
Other	13	12.9
Khatoum	4	4.0
Marriage age		
<1 year	3	3
1-5 years	39	38.6
6-10 years	33	32.7
11-15 years	12	11.9
>15 years	14	13.8

Long Acting Hormonal Contraception: Knowledge

The vast majority of the participants (96%) acknowledged that they heard about long acting hormonal contraceptive. Sub dermal implants; commercially known as Implanon was the most popular method to be heard about (78.35%), followed by injectable method (20.62%). Regarding the Intra Uterine system; only one woman who was a doctor had heard about ti .The main source of information about LAHC was family and friends in 62.89 % of participants, followed by 21.65% who got their knowledge from doctors in postpartum visits. The media as a source of information participated only by 15.46 %. Almost fifty four percent of the participants (53.61%) correctly knew the side effects of LAHC. When asked the duration of protection from pregnancy by using LAHC, 53.61% of the participants did not know about this .On the statement that Use of intrauterine LAHC restricts normal routine activities, 43.30% of the participants answered yes while majority of them (51.55%) said 'No' while 5.15% of the participants did not know about it. Almost 50% of the participants answered that Insertion and removal of LAHC implants are highly painful while 41.24% of them did not agree with this and 9.28% did not know about this. Regarding their opinion on the advantages of LAHC, 46.39% of the participants answered that it helped mother to regain her health , 28.87% ,5.19% and 4.12% of them were of the opinion that it gave better chance for baby to grow and because the desired number of children achieved and for economic purposes respectively. Almost fifteen percent of the participants cited all the above options for the use of LAHC. The details of the knowledge of LAHC of the participants are shown in table 2.

Table 2 Showing the knowledge about the LAHC among the participants

Variables	No.	Percentage
Have you ever heard about long acting hormonal contraceptive		
Yes	97	96.0
No	4	4.0
What method (s) exactly you heard about		
Implants	76	78.35
Injections	20	20.62
Intrauterine system	1	1.03
Source of information (N=97)		
Media	15	15.46
Family and friends	61	62.89
The treating doctors	21	21.65
Do you know the side effect of this (N=97)		
Yes	51	53.61
No	46	46.39
Do you know the duration of protection from pregnancy by using LAHC?		
Yes	45	46.39
No	52	53.61
Use of intrauterine LAHC restricts normal routine activities?		
Yes	42	43.30
No	50	51.55
I don't know	5	5.15
Insertion and removal of LAHC implants are highly painful		
Yes	48	49.48
No	40	41.24
I don't know	9	9.28
In your opinion, what are the advantages of LAHC		
Help mother to regain her health	45	46.39
Give better chance for baby to grow	28	28.87
Desired number of children achieved	6	5.19
Economic purposes	4	4.12
All of the above	14	14.43

Long Acting Hormonal Contraception: Attitude

As far as the attitude towards using LAHC is concerned,74.3% of the participants desired their willingness for future use. The vast majority of the participants (87.63%) discussed with their husband before using it and 94.11% of the husbands of the participants gave their consent for its use. More than half of participants (51.5%) thought that having five children or more is suitable for them because of religious believe that limitation is prohibited in Islam. 47.5% thought the ideal number of children in their families is 3-4 children while only one women is considering having one or two children is the best. Forty eight women (47.5%) under study felt more comfortable with a spacing period of three years between their pregnancies, 32.7% decided that two years spacing is suitable for them. Three women (3%) stated than one year is enough for them and eighteen women (17.8%) considered more than three years spacing is the best giving them and their children a healthier life. On the attitude of using LAHC, the participants claimed that they chose the method because it was safe (53.61%), easy to use (24.74%), failure of the other method (13.40%) and cost effective (8.25%). The details of the responses on attitude questionnaires are shown in table 4.

Table 4 Showing the responses on the attitude questionnaires

Variables	No.	Percentage
Will you use the Long Acting Hormonal Contraceptive in future		
Yes	75	74.26
No	26	25.74
Did you discuss the matter with your husband before using the LAHC		
Yes	85	87.63
No	11	12.37
Opinion of husband on the use (N=85)		
Agreed	80	94.11
Disagreed	5	5.89
What do you think the ideal number of children is		
1-2 children	1	1
3-4 children	48	47.5
5 and more children	52	51.5
Spacing of children		
1 year	3	3
2 years	33	32.7
3 years	47	46.5
> 3 years	18	17.8
Why did you chose this method of contraception		
Its safe	52	53.61
Easy to use	24	24.74
Cost effective	8	8.25
Failure of the other contraception method	13	13.40

Practice on use of Long Acting hormonal Contraceptive

As far as the practice of use of LAHC is concerned only 34.74% of the participants were using it regularly. Majority of whom (53%) who did not use it reported fear of side effect as the cause while almost seventeen percent and fifteen percent of them cited willingness to be pregnant and refusal by the husband as the main causes respectively. Infrequent sex was the cause of not using the LAHC among the 13.6% of the participants. Implants were the preferential choice for 74.28% of the participants who used LAHC while the rest 25.72% used injections. The vast majority of the participants (94%) got their LAHC from hospital and only 5.9% got it from private clinic. The details on the response of practice questions are shown in table 4.

Table 4 Showing the participants' response on the practice questions on LAHC

Questionnaires	No.	%
Do you use LAHC regularly		
Yes	35	34.7
No.	66	65.3
If the answer is no, why?		
Fear of side effects	36	54.54
Willingness to become pregnant	11	16.67
Refusal by husband	10	15.15
Infrequent sex	9	13.64
Which method are you using now?		
Implants	26	74.28
Injections	9	25.72
From where did you get it?		
Public hospital	62	93.93
Private clinic	4	6.07

Knowledge score

The mean knowledge score of the participants was 2.17 ± Std. Dev. 0.779 (Range 1-4). The majority of the participants (64.4%) had good knowledge about the LAHC. The good knowledge about LAHC was significantly more among the participants with age group of 26-35 years as compared to those in 15-25 years of age group and those in the age group of >35 years (88% Vs. 55.885 vs. 70.5%, P= 0.043), As educational level increased ,the good knowledge of the participants towards LAHC also increased significantly .It was highest among the postgraduate participants as compared to those with graduate, secondary and primary educated participants (100% vs.76.19%vs.67.74% and vs.59.095, P=0.032). The good knowledge about LAHC was higher among the participants who were working than those who were housewives but it was not statistically significant (70% vs.62.96%, P=0.377). The good knowledge about the LAHC was significantly more prevalent among the participants living in Bahri area than those living in Omdurman and Khartoum and others (88.23% vs.55.22vs.75%, P=0.045).There was not significant difference in knowledge on LAHC among the woen with different parity (P=0.421) and those who heard of LAHC (P=0.094).The detail of the knowledge score and its association with the demographic characteristics is shown in table 4.

Table 4 showing the details of the knowledge score and its association with the demographic characteristics

Variable	Good knowledge No. (%)	Poor Knowledge No. (%)	P value
2.17 ± Std. Dev. 0.779 (Range 1-4).	65(35.4)	36(35.6)	
Age group			
15-25 years	19(55.88)	15(44.12)	0.043
26-35 years	44(88.0)	6((12)	
>35 years	12(70.5%)	5(29.5)	
Educational qualification			
Uneducated	1(50%)	1(50%)	
Primary	13(59.09)	9(40.91)	0.032
Secondary	21(67.74)	10(32.26)	
Graduate	33(76.19)	10(23.81)	
Post graduate	4(100.0)	0(0.0)	
Occupation			
Housewife	14(70.0)	6(30.0)	0.377
Working	51(62.96)	30(37.04)	
Location			
Omdurman	37(55.22)	30(44.78)	
Bahri	15(88.23)	2(11.77)	0,046
Other	10(78.92)	3(21.08)	
Khatoum	3(75.0)	1(25.0)	
Parity			
1-3 children	44(67.69)	21(32.21)	0.421
4-6 Children	16(53.33)	14(46.67)	
>6 children	5(83.33)	1(16.67)	
Have you ever heard about long acting hormonal contraceptive			0.094
Yes	64(65.97)	33(34.03)	
No	1(25)	3(75.0)	

Attitude score on the use of LAHC

The mean attitude score of the participants was 3.34 ±Std.Dev. 0.829 (Range 1-4).Almost forty nine percent of the participants (48.5%) had negative attitude towards the family planning and long acting hormonal contraceptive. As age increased the positive attitude towards family plann8ing and LAHC also increased. It was maximum among the participants in the age group of >35 years as compared to the age group of 26-35 and the age group of 15-25 years (82.83% Vs. 58.82% vs. 72.05, P= 0.004). Similarly as the education level increased the positive attitude towards family planning and LAHC use increased. The positive attitude was maximum among the post graduate participants as compared to those with graduation , secondary educated, primary educated and illiterate (100% vs. 71.43% vs.67.74% vs.50.0% vs.05, P=0.023). The positive attitude towards family planning and LAHC was significantly more among the working mother than the housewives (75% Vs

49.38%, P=0.032). The positive attitude towards family planning and LAHC was more among the participants living in Bahri as compared to those living in Khartoum and Omdurman and other place but it was not statistically significant (64.70% vs.53,85% vs.49.255 and Vs. 25 %, P=0.480). The participants with 1-3 children had significantly more positive attitude towards family planning than those with 4-6 children and more than 6 children 69.23vs.60.0% vs. 33.33%%, P=0.044).The details of the attitude score and its association with different socio demographic characteristics is shown in table 6:towards the use of LAHC is shown in table 5.

Table 5 showing the attitude score and its association with different socio demographic characteristics is shown in table 6: towards the use of LAHC

Variables	Positive attitude No.(%0	Negative attitude No.(%0	P value
Attitude score :3.34 ±Std.Dev. 0.829 (Range 1-4).	52(51.5)	49(48.5)	
Age groups:			
15-25 years	20(58.82)	14(41.18)	0.004
26-35 years	36(72.0)	14(28.0)	
>35	14(82.35)	3(17.65)	
Educational qualification			
Uneducated	0(0.0)	2(100.0)	
Primary	11(50.0)	11(50.0)	0.023
Secondary	21(67.74)	10(32.26)	
Graduate	30(71.43)	12(28.57)	
Post graduate	4(100.0)	0(0.00)	
Occupation			
Housewife	15(75.0)	5(25.0)	0.032
Working	40(49.38)	41(50.62)	
Location			
Omdurman	33(49.25)	34(50.75)	
Bahri	11(64.70)	6(35.30)	0.480
Other	7(63.85)	6(36.15)	
Khatoum	1(25.0)	3975.0)	
Parity			
1-3 children	45 (69.23)	20(30.77)	0.044
4-6 Children	18(60.0)	12(40.0)	
>6 children	2(25.0)	4(75.0)	

DISCUSSION

The present study was an attempt to assess the knowledge, attitude and practice on family planning and long acting hormonal contraceptive. An overwhelming majority of the participants (96%) had heard and were aware about the long acting hormonal contraceptive in the present study. A similar result was reported in the Egyptian[9] and Nepali study[10]where 99% and 92.3% of the participants of the participants heard with good description about the different types of LARHC respectively. However an average of 40% of the participants had reported that they have heard about the LAHC in one Latin American study.[11] A good level of knowledge about long acting reversible contraceptive methods was also reported by an Ethiopian study (Ad.OR =11.6 , 95% CI 5.42-24.80).In this study the ODDs of negative attitude towards the LAHC was less than one (Adj.OR =0.31 , 95% CI 0.21-0.46).[12] In the present study almost 50% of the participants were having good attitude towards LAHC.

Like the present study in which the participants preferred this method of contraception due to its safety, easy to use, failure of the other method and cost effective, the participants of Latin American study[11] found it more convenient, effective and long term protection from pregnancy. The present study has shown that majority of participants who did not use it LAHC reported the fear of side effect, willingness to be pregnant and refusal by the husband as the main causes. In Egyptian[9] and Nepali [10] study also fear of side effects, desire for more children, irregular sexual relationship, and husband opposition were the main reasons of not using the LAHC. Only 34.74% of the participants were using the LAHC in our study which is in contrast to one American study[13] where majority of the participants (62%) had high LARC Implants were the preferential choice for majority of the participants in the present study. In Egyptian study [9] also majority of the participants preferred implants.

As far as the family planning is concerned majority of the participants in the present study preferred five and more than five children and birth spacing of 3 years between the 2 children. Spacing of child within 2 years of time was the choice of the participants in an Ethiopian study.[14] However birth spacing of 44.9 months has been observed in one Nepali study.[15] In one Indian study[16] also the majority of women preferred two child norms but the Muslim women preferred three children norm. Religion played an important role in spacing of child birth and number of children since Islam prohibits the family planning.

CONCLUSION

The present study has shown that though majority of participants knew about the long acting hormonal contraceptive but only one third of them were using it regularly. Almost fifty percent of the participants had negative attitude towards the use of long acting hormonal contraceptive. Fear of side effects, willingness to become pregnant, and refusal by the husband were the main cause of not using the long acting hormonal contraceptive among them. Majority of the participants in the present study preferred five and more than five children and birth spacing of 3 years between the 2 children. There is need of comprehensive family planning and LAHC awareness programme to teach the patients about the benefits of LAHC and family planning.

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