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Abstract

Background: Family planning (F.P) is an important strategy in promoting maternal and child health. Contraceptive use is a key factor in preventing unwanted pregnancies, reducing maternal and child mortality, and improving the lives of women and their families. A recent study estimated that contraceptive use could avert more than two-fifths of maternal deaths. Aim of this study: was to assess the effect of implementing guideline instruction on awareness of newly married women regarding family planning methods Research question: what is the effect of implementing guideline instruction on awareness of newly married women regarding family planning methods?. Research design: A Descriptive cross sectional research design has been utilized in the present study. (Subjects and methods) Sample: Three hundred participants were included in this study. Tools: a structured interviewing questionnaire sheet developed by the researcher. Pretest was done to evaluate participant's knowledge regarding contraceptives then the guideline and health education for participants, Post evaluation was done to test improvement of their awareness after 3 months of intervention. Results: showed that level of knowledge regarding contraceptives among newly married women was poor in the pre test while after implementing the guideline and health education a great improvement in their level of knowledge was observed with high statistical significant difference ($P \leq 0.001$). Conclusion: health education and implemented guideline were effective in increasing the knowledge of women regarding family planning. Recommendations: Efforts should be made to strengthen the media for providing accurate knowledge about F.P programs, premarital family planning counseling for male and females, and increase quality of F.P services staff through training program and updating information.

Key words: awareness, family planning and newly married.

Introduction

Increasing population growth is a worldwide problem today. Family planning saves lives and can improve the health of women, children and society as a whole. Gaining control of one's reproductive choices and fertility has health benefits for both mother and child. Some people have argued that enhanced living standards and life expectancy, education, and women's emancipation are the most effective ways to reduce fertility and curb populations growth, though of course contraceptive methods should be available. However, it has been noted that having family planning programs and services available speeds up fertility decline and slows population growth. ⁽¹⁾

The health impact of family planning occurs primarily, through the avoidance of unwanted pregnancies, limiting the number of births, proper spacing, and timing the births particularly the first and last, in relation to the age of the mother. ⁽²⁾ A variety of different methods of contraception are available, which are generally extremely safe compared with the risks associated with pregnancy and childbirth. Not all methods are suitable for everyone. Expanding the number of family planning options available to women is a critical part of increasing contraceptive coverage, decreasing unintended pregnancies and reducing maternal morbidity and mortality around the globe. ⁽³⁾

There are 5 primary ways family planning methods can work: 1) block sperm from reaching the egg; 2) change the man's sperm so they cannot fertilize the egg; 3) prevent eggs from being released; 4) thicken mucus in the cervix, preventing sperm from passing; 5) alter the lining of the uterus (womb) so the fertilized egg does not attach or implant on. Many methods have multiple actions, and it is currently not possible to precisely determine the contribution of each. Periodic abstinence is often a part of fertility awareness-based methods (natural family planning).

These methods can also be used to increase the chances of achieving a pregnancy. ⁽⁴⁾

Contraception (birth control) may be part of the nurse's responsibility in family-planning clinics, in physician or nurse-midwife practices, or on the postpartum or gynecology units of an acute care hospital. The nurse's role in family planning includes the following: (answering general questions about contraceptive methods, explaining different methods that are available, including accurate information about their advantages and disadvantages, and teaching the correct use of the method or methods of contraception that the patient chooses), etc. ⁽⁵⁾

Significance of the study

- In developing countries, there is lack of knowledge of newly married about different methods of family planning.
- High fertility and rapid population growth have an impact on the overall socio-economic development of the country in general and maternal and child health in particular. ⁽⁶⁾

Aim of the study

The aim of this study was to assess the effect of implementing educational guideline on awareness of newly married women regarding family planning methods.

Research question

What is the effect of implementing guideline instruction on awareness of newly married women regarding family planning methods?

Subjects and Methods

Research Design:

A Descriptive research design has been utilized in the present study.

Setting:

This study was carried out at MCH centers in Minia city especially at premarital counseling services office; there are 2 MCH centers in Minia city. Western MCH center serving Minia city only that is providing care for about one thousand woman each year. Eastern MCH center covering the whole Minia centers (9 centers) and providing care for about two thousands woman each year. Both centers work from 9 A.m to 2 p.m.

Sample

A purposive sample of newly brides was recruited in the current study according to Inclusion criteria: newly married women, Women who can read and write to be able to read the guideline. Exclusion criteria: previously married, divorced or widow women and brides went to perform the certificate after marriage has occurred. A total of 10% of brides presented to both MCH centers in 2016 with a total 3000 brides were recruited to be included in the study, so sample became 300 bride, 150 brides was taken from each MCH center.

Tools of the study:

A structured interviewing questionnaire tool was designed by the researcher that aims to identify the effect of implementing guideline instruction on awareness of newly married women regarding family planning methods in Minia city. The questionnaire was composed primarily of closed-ended questions with a set of defined answers, from which the interviewee was asked to choose one response in some questions and more answer in other questions. The interviewer was instructed to read the questions aloud and to record respondents' answers.

The questionnaire includes the following parts:-

Part 1: Sociodemographic data: This includes (Participant's age, educational level, occupation, Residence, Husband's age, Husband's occupation, average monthly income).

Part 2: Awareness about family planning methods: This includes questions to assess the woman's knowledge about family planning methods such as:

Whether she heard about the word "birth spacing"?, What does birth spacing mean to her? , different types of contraceptives, the first choice of contraceptive methods for newly married women, whether she use any one of them?, Sources of information regarding contraceptives, Side effects of family planning methods, the possible complications that may arise after using contraceptives, Who must prescribe the contraceptive methods?, What are places to go that introduce family planning services?, and whether she need for more information about contraceptive methods?.

Scoring system

Level of knowledge was assessed by evaluating questions of awareness, Each correct answer corresponds to 1 point, some questions have one answer so it takes either (zero if no answer or 1 if correct answer) and other questions have more than one answer that takes either (zero if no answer, 1if one answer or 2 if more than one answer) so there was a total of 31 points for questions that evaluate awareness. A total score of 10 or less was considered have poor knowledge, and participants who scored (11-19) were

considered have good knowledge, while score of 20 or more considered to have very good knowledge.

Regarding guideline instruction, it contained all information the woman may need about different family planning methods, each method how it works, when to start, advantages, disadvantages, side effects, and complications. The guideline also supplied with figures.

Validity of tools

To establish validity, the questionnaire was piloted on Jury committee composed of a panel of 5 experts of Obstetrics and Gynecological staff, and Nursing professors (Minia and Assiut universities) who reviewed the tool for clarity, relevance, comprehensiveness, understanding, applicability and easiness.

Ethical consideration:

An official permission and consent was obtained from the dean of the Faculty of Nursing, as well as the directors of both MCH centers after explaining the nature and purpose of the study. Brides have the right to refuse to participate and or withdraw from the study without any rational any time. Brides privacy was considered during collection of data no health hazards were present. Participants were assured that all their data are highly confidential.

A pilot study

A pilot study was done for (10%) of the participants (30 brides) from the sample to test the applicability and clarity of the questions in the tool and the necessary modification was done. According to the results of the pilot study, tools modifications were done and the brides that were tested in the pilot study were excluded from the main study sample. The total sample was collected on the modified sheet.

Procedure:

The following phases were adopted to fulfill the aim of the current study; assessment, planning, implementation, and evaluation phases. These phases were carried out from March 2016 to January 2017. Official approvals and letters to conduct this research were obtained from research ethical committee of faculty of nursing, dean of faculty and director of each MCH center.

Assessment phase: in which data was obtained and recorded by the researcher from the brides in the MCH center while she attended to perform premarital certificate. Data assess their knowledge about family planning methods, at the beginning of the interview the researcher greeted each participant, explained the purpose, duration, and activities of the study and taken oral consent.

Planning phase: in which the educational guideline was developed by the researchers based on relevant review of literature, in a form of printed Arabic brochure to satisfy the main aim of the research

The main objective of the educational intervention was to raise participants' awareness about different family planning methods

Implementation phase: After filling the questionnaire, the researcher provided health education about family planning methods and answer to all questions of participants related to this subject. Also corrects misconceptions inherited from different sources. At the end

of each interview, each pride received a guideline. Then instruct participants to attend the MCH center after three months of the guideline to carry the posttest test and evaluate its effect on their level of knowledge by the same format of the questionnaire.

Evaluation phase: Contact the woman after passing 3 months following marriage, some of them came to the center where follow up was carried out by actual interview and others apologized to attend so the researcher was obliged to perform the follow up through the telephone. Using the same interviewing questionnaire. The researcher

turned to refill the same questionnaire to evaluate the effect of the implemented guideline on their awareness about contraceptives.

Statistical analysis

The collected data was tabulated, computerized, analyzed and summarized by using descriptive statistical tests to test research questions by using SPSS version (20). Comparison between pretest data and posttest data was done using Chi square and P. value considering P. value ≤ 0.05 (significant) and P≤ 0.001 (highly significant).

Result

Table (1): Distribution of the sample according to Personal data:

Items	No. (N= 300)	Percent (%)
Age / years:		
Less than 20 years	128	42.7
20-25 years	108	36.0
25-30 years	46	15.3
More than 30	18	6.0
Mean age ± S.D	21.7± 4.5	
Educational levels		
Read and write	72	24.0
Primary	44	14.7
Secondary	112	37.3
University	72	24.0
Occupation		
Student	36	12.0
Working	38	12.7
Housewife	226	75.3
Residence		
Rural	234	78.0
Urban	66	22.0
Husband's age /(years)		
Less than 20 years	6	2.0
20-25 years	138	46.0
25-30 years	108	36.0
More than 30	48	16.0
Mean age ± S.D	25.8± 3.8	
Husband's occupation		
Not working	154	51.3
Working	146	48.7

Table (1): show the distribution of the studied sample according to personal data in which the mean prides age was (21.7± 4.5) years. Regarding educational level, it was observed that more than one third of the studied sample (37.3%) was secondary school, while (14%) only were primary education. The majority of the sample (75.3%) was housewives. According to residence, it was found that (78%) reside in rural areas. On the other side, it was found that the mean husbands age is (25.8± 3.8) yrs. And more than half of them were not working.

Table (2): Distribution of the sample according to types of contraceptive methods known

Item # types of contraceptive	Test (N=300)				chi ²	P. value	
	pre-test		Post-test				
	No.	%	No.	%			
a. Natural contraceptives	Safe period	10	3.3	44	14.7	77.99	0.001**
	Withdrawal	4	1.3	14	4.7		
	Lactational amenorrhea	6	2.0	92	30.7		
	I don't know	280	93.3	150	50.0		
b. Hormonal contraceptives	Pills	194	64.7	298	99.3	124.650*	0.02*
	Injection	4	1.3%	2	0.7		
	Implanon	8	2.7	0	0.0		
	I don't Know	94	31.3	0	0.0		
c. Barrier contraceptives	Male condom	14	4.7	170	56.7	195.329*	0.012*
	Spermicides	0	0.0	2	0.7		

Item # types of contraceptive	Test (N=300)				chi ²	P. value	
	pre-test		Post-test				
	No.	%	No.	%			
d. mechanical methods	Female condom	2	0.7	0	0.0	202.072*	0.009*
	I don't know	284	94.7	128	42.7		
	IUD	134	44.7	292	97.3		
	I don't Know	166	55.3	8	2.7		
e. Surgical methods	Female sterilization	22	7.3	114	38.0	89.205*	0.02*
	Male sterilization	0	0.0	6	2.0		
	I don't Know	278	92.7	180	60.0		

*statistical significant at P ≤ 0.05

** high statistical significant P ≤ 0.001

N.B1: (#) more than one item was checked and the table didn't use normal distribution

N.B2: total is not 100% as women knew of multiple methods of contraception

Table (2) show that in the pretest, different types of contraceptives weren't well known that was improved posttest with statistical significant difference at P ≤ 0.05

Table (3): Distribution of the sample according to side effects of family planning methods known:

Alternate	Test (N=300)								Chi ²	P. value
	pre-test				Post-test					
	No.		%		No.		%			
	Yes	No	Yes	No	Yes	No	Yes	No		
Hair loss	0	300	0.0	100.0	6	294	2.0	98.0	629.413*	0.01*
Weight loss	6	294	2.0	98.0	52	248	17.3	82.7		
Back pain	12	288	4.0	96.0	70	230	23.3	76.7		
High blood pressure	2	298	0.7	99.3	38	262	12.7	87.3		
Anxiety	0	300	0	100.0	0	300	0	100.0		
Weight gain	26	274	8.7	91.3	100	200	33.3	66.7		
Vaginal discharge	4	296	1.3	98.7	80	220	26.7	73.3		
Abdominal pain	2	298	0.7	99.3	16	284	5.3	94.7		
Severe headache	12	288	4.0	96.0	28	272	9.3	90.7		
Bleeding	36	264	12.0	88.0	100	200	33.3	66.7		
Nausea and vomiting	8	292	2.7	97.3	34	266	11.3	88.7		
Reduced breast milk	2	298	0.7	99.3	28	272	9.3	90.7		
Nervous/heart palpitation	2	298	0.7	99.3	6	294	2.0	98.0		
Intrauterine device rejection	0	300	0.0	100.0	32	268	10.7	89.3		
Irregular period/amenorrhea	8	292	2.7	97.3	74	226	24.7	75.3		
Others	34	266	11.3	88.7	26	274	8.7	91.3		
I Don't Know	0	300	0	100.0	0	300	0	100.0		

N.B:total is not 100% as more than one item was checked * statistical significant at P ≤ 0.05

Table (3): show that there was statistical significant differences (P=0.01) between pre and post test information about side effects of family planning methods known.

Figure (1): Distribution of the sample according to their level of knowledge about contraceptive methods:

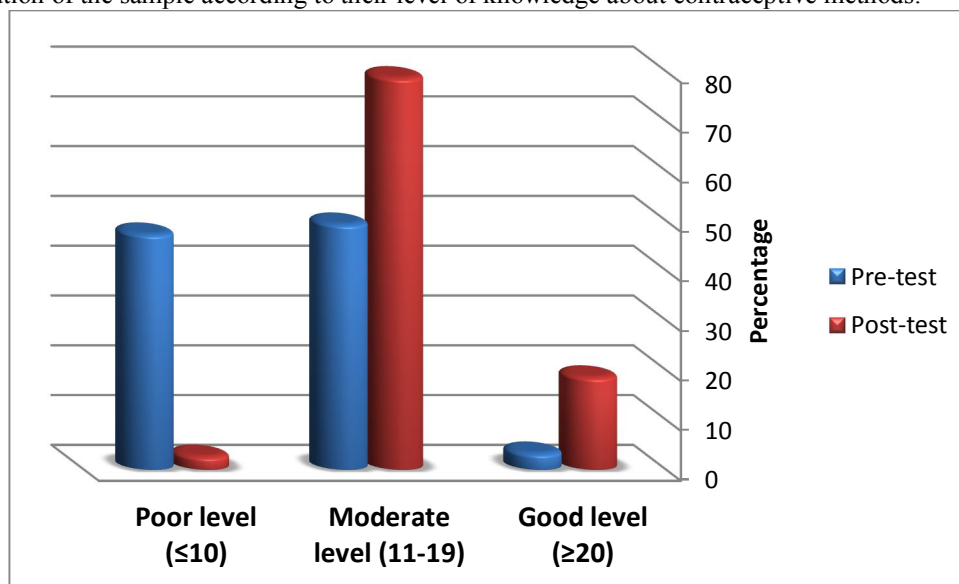


Figure (1)

Figure (1) illustrates the distribution of the studied sample according to their level of knowledge about contraceptive methods where there was high statistical significant difference at ($P \leq 0.001$) between the level of knowledge pre and post intervention. Near half of them (47.3%) had poor level of knowledge before intervention and (49.3%) had moderate level of knowledge pretest that was improved after intervention to be (78.7%). Also good level of knowledge improved from (3.3% to 18.6%) pre and post test respectively.

Discussion

Family planning defined as the practice that helps individuals or couples to attain certain objectives such as avoiding unwanted pregnancies, bringing about unwanted babies at the right time, regulating the interval between pregnancies, controlling the time at which birth occurs in relation to the ages of the parents and determining the number of children in the family. (WHO, (2013) ⁽⁷⁾ the present study aimed to assess the effect of educational program on family planning methods among newly married women.

The present study showed that the mean age and S.D of the participants was (21.7± 4.5) years, and the great proportion of them were less than 20 yrs. This came in accordance with the study of (Saadat parhizkar, 2012) ⁽⁸⁾ about "Impact of Family Planning Health Education on the Knowledge and Attitude among Yasoujian Women" in which the mean age was (23.27± 3.96) yrs. This is the commonest age of marriage. The present study showed that more than one third of the sample had completed their secondary school; this is agreed with the study of (Andrew G. et al, 2016) ⁽⁹⁾ who study "Knowledge and Practice of Family Planning by Women of Childbearing Age in Delta State, Nigeria". And noticed that more than one third of participants were secondary school.

This study found that about three quarters of the sample were housewives, this came in contact with the study of (Afrah M at al, 2014) ⁽¹⁰⁾ who study "Impact of Education Program about Family Planning among Yemeni Women on their "Knowledge and Attitude" in Sana'a city" who found that more than two thirds of the study sample were housewives.

Concerning residence the present study indicated that more than three quarters reside rural areas, this came in accordance with the study of (H. Tuladhar et al, 2008) ⁽¹¹⁾ that studied "Awareness and practice of family Planning methods in women attending Gyne OPD at Nepal Medical College Teaching Hospital" and founded that three quarters of participants reside rural areas. This is may be because the 2 MCH centers serve rural areas and one only serves the urban so rural areas participants representing a major portion of the sample.

Concerning types of contraceptive methods known, the present study revealed that the majority of the sample (near two thirds) pre intervention versus near all of the sample post intervention know oral contraceptive methods (pills), this agreed with the study of (Christina A. Nti et al, 2014) ⁽¹²⁾ who found that more than four fifths of participants know oral contraceptive pills. The second method following pills was IUD which represented (less than half versus the majority of participants) pre /post intervention respectively, this came in accordance with the study of (Md. Kamruzzaman et al, 2015) ⁽¹³⁾ who found that more than three quadrants of participants knew IUCD following oral pills and male condom. But this result wasn't agreed with (Ambareen Khan et al, 2011) ⁽¹⁴⁾ who studied "Awareness and Practice of Contraception Among Child Bearing Age Women" and found that a great proportion

know barrier method , more than two thirds know OCPs, more than the half know IUCD, and who know injectable representing near one third of the sample.

In relation to side effects of F.P methods, it was found that the more popular side effects known were in order (bleeding, others (includes giddiness, loss of appetite, fever and allergy), weight gain , back pain, and sever headache). The ratio of all increased post intervention with statistical significant difference. These results was compatible with the study of (Lasisi, C. J., et al, 2014) ⁽¹⁵⁾ about "Awareness and Utilization of Family Planning among Married Women in the Traditional Core Areas of Ibadan, Oyo State" who found that perceived side effects of family planning practices are, inability to give birth (near two fifths), menstrual maladjustments (near one quadrant), irregular bleeding (more than one fifths), body complications such as change in sex drive, sore breasts, and mood changes (near one tenth), and headache representing low percentage.

By looking to the total participants' knowledge scores about family planning methods, it was found that, less than half of the sample pretest had poor score of less than 10 points, improved to good score on the posttest with high statistical significant difference at ($p \leq 0.001$). these findings were matching the results of the study conducted in Jordan by (Mohamed F., et al, 2012) ⁽¹⁶⁾ who studied "Impact of Family Planning Health Education on the Knowledge and Attitude among Yasoujian Women". That showed that there was a significant improvement in respondents' knowledge and attitude after educational program at $P < 0.001$.

Also these results came in the same line with the study of (Afrah M at al, 2014) (10) in sana's city. In which the majority of the studied sample had poor score in pretest that is improved to good score on immediate posttest and remaining in good score with slight decreased in percentage on follow up test. Also these results came in contact with the study of (Saadat parhizkar, 2012) (8) who found that there was a significant improvement ($P < 0.001$) in the level of knowledge regarding family planning among experimental group (enhancement from 3.67±4.04 to 9.67±3.15).

Conclusion

This study concluded that the implementation of an educational program was effective and significantly improved participants' knowledge regarding family planning methods.

Recommendations

Based on results of the present study it is recommended that

1. Premarital family planning counseling should concentrate on young age women.
2. Further research is required to understand the various social and cultural reasons for not using contraceptives.
3. Efforts should be made to strengthen the media for providing accurate knowledge and government

should take initiatives to support such programs about F.P.

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