

Causes of Switching from One Family Planning Method to Another in Rural Area

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Abstract

Background: Contraceptive switching from one method to another is a common phenomenon. Switching from a method to another exposes women for unplanned pregnancy. **Aim:** The aim of this study was to assess the factors of switching from one family planning method to other methods in rural area. **Sample:** Purposive subject of 368 women who switching from a family planning method to another was selected from 4 primary health care units in. **Tools:** interviewing questionnaire for assessing the woman socio demographic data as (Age, gender, Education, Marital status...etc). Assessing women's knowledge. Assessing factors of this phenomenon. Results: Nearly, more than half of women included in this study doesn't work, three quarter of sample had completed secondary school & higher education. More than three fifth of studied elderly had unsatisfactory total knowledge about coping. About third to five of women who participate in this study had incomplete knowledge about family planning methods while one third had wrong knowledge. **Conclusion:** on the light of the main study it can be concluded that, third to five of women who participate in this study had incomplete knowledge about family planning methods while one third had wrong information about family planning methods. **Recommendations:** Different health educational programs for health care provider based on their assessment regarding family planning information to promote level of their knowledge, that include consideration and management of overall communication skills for them.

Key words: Family planning ,Contraceptive methods, unplanned pregnancy.

Introduction

Family planning (FP) allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births, it is achieved through use of contraceptive methods and the treatment of involuntary infertility, a woman's ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy (*United States Agency, 2013*).

Family planning saves the lives of women, newborns, children, and teenage girls, lowers the number of unplanned pregnancies and abortions, family planning benefits families and communities, nations by

enabling increased public spending per person in all sectors, it also reduces the burden on natural resources and the environment (*Smith et al., 2009*).

Midwifery services are key to family planning, a safe pregnancy and childbirth as well as healthy newborns, Worldwide, approximately 287000 women die every year due to pregnancy and childbirth related complications, 2.9 million newborns die in the first month of life and there are 2.6 million stillbirths, most of these largely preventable deaths occur in low-income countries and in poor and rural areas (*Hopkins & Bloom Berg, 2011*).

Providing accurate and reassuring information to women and couples about

family planning is an essential component of family planning promotion and advocacy, those who do so do a great service to women, their families, and the community, effectively promoting family planning will help people to start using contraception and motivate them to continue, this will improve their health and the health of their children, in turn, communities and nations will benefit from stronger, healthier, more productive citizens who can better care for themselves, educate their children, and put less strain on limited resources (*United States Agency for International, 2013*).

Many Egyptian women are having more births than they consider ideal, overall 14 % of pregnancies in the last five years unwanted, among these 5 % of births were identified as 'mistimed', meaning wanted later; while 9 % were unwanted entirely, the study concludes that if unwanted births could be eliminated the total fertility rate in Egypt would decline by around 20% (*Egypt Demographic Health Survey, 2008*).

The lack of information can place women at risk of unwanted pregnancy soon after a previous birth, which may carry health risks and cause complications and death during pregnancy, child spacing continues to be a challenge especially among young mothers, overall about 20 percent births occur within 24 months of the previous one (*United States Agency for International Development, 2013*).

Egypt's government-led national family planning programme has succeeded in raising the contraceptive prevalence rate, from 48 percent in 1991 to 59 percent in 2014, the most widely used methods are the Intrauterine Device (IUD), the pill, and injectable, and three percent of these women cited that they use traditional methods, thereby, 41 percent of married women were, as of 2014, not utilizing any family planning method (*Egypt Demographic Health Survey, 2014*).

The extents to which women utilize contraceptive methods also vary within age

groups, whereby only 21 percent of married women aged 15-19 use contraception, compared to 73 percent among married women aged 35-39, only two percent of ever-married women aged 15-49 regard use of family planning before a woman's first pregnancy as appropriate (*Egypt Demographic Health Survey, 2008*).

Quality FP services require competent and well-prepared staff and volunteers who can safely provide FP methods and help clients make informed choices, training needs to be interactive where learners/ participants are engaged in activities such as role plays, small group work, learning games, and opportunities to demonstrate what they have learned in field (*United States Agency for International Development, 2013*).

The role of the community health worker is to Provide high quality services, know the needs of the community, help to create demand for services that promote health, encourage community member's efforts to stay healthy, prepare for visits of mobile outreach teams, work with supervisor to fix any problems that arise, link the community with the health care system, keep good records and keep track of supplies in order to request more in time to avoid running out (*Hopkins & Bloom Berg, 2011*).

Significance of the study

FP is a major issue in the world today; In addition, social scientists point out that birth control is necessary today if we are going to solve the problem of over population, poverty that can be associated with certain health problems (*World Health Organization, 2013*).

Egypt is the most populous country in the Middle East and the thirds most populous country in Africa, the current fertility rate is at 3.5 which constitute a rise from earlier years, reaching a level last seen in 2000 according to the preliminary findings (*Egypt Demographic Health Survey, 2014*).

The total Fertility Rate has been slowly declining from 4.4 live born children per woman in 1988 to 3 in 2008 and then risen again in 2014, the government has attributed the high rate contraceptive use to efforts to inform women about health services, one in eight married women was in need of family planning the unmet need for family planning in Egypt is 12.6 % (Yacobson *et al.*, 2012).

Aim of the Study

The aim of this research is to assess factors of switching from one family planning method to another in rural areas through:-

1- Assessment the characteristics of women who switching from one family planning method to another in rural areas.

2- Assessing women's knowledge in rural area about family planning methods.

3- Assessment for needs and health problems (factors) of women who switching from one family planning method to another in rural areas.

4- Physical assessments for women who switching from one family planning method to another in rural areas.

5- Assessment of women satisfaction regarding family planning services.

Research Questions

Research questions postulated to achieve the purpose of the study are:-

1.Is there a relation between the woman's characteristics and switching from one family planning method to another in rural areas?

2.Is there a relation between the factors that lead to switching from one family planning method to another in rural areas?

3.Is there a relation for women's knowledge in rural area regarding switching for family planning methods?

Subjects and Methods

The subject and methods are portrayed under four main design as follows:

- i. Technical design
- ii. Operational Design
- iii. Administrative design
- iv. Statistical Design

i. Technical design

The technical design includes setting of the study, study subjects, and tools of data collection.

Research design

A descriptive analytical study was utilized in order to identify the factors of switching from one family planning method to another in rural areas

Research setting

This study was conducted in family planning clinics in primary health care units in Menufe Health Department that contains 32 primary health care units in Menufyia Governorate, these 4th primary health care units were Fisha Elkopra, Kafrfisha, Kamshosh and El Markaz El Sehy in Menouf, The researcher visited one clinic 2 days per week for three months at Saturday and Tuesday

Subjects

This study was included (368) purposive subject or sampling, the period from May 2016 to October 2016 the total number of women in the 4th selected primary health care units (PHCU) from the total 32 (PHCU) was (8430) by 10%, that represent

4.5% (368) of total switching from One Family Planning Method to another, women of the follow rate (368) representing (4.5%), they were selected for the study, selected sample mentioned as 100 women from FishaElkopra primary health care unit (PHCU), 100 women from Kafrfisha (PHCU), 100 women from El Markaz El Sehy in Menoufand 68 women from Kamshosh(PHCU).

$$n = \frac{M}{\left[\left(S^2 \times (M - 1) \right) \div pq \right] + 1}$$

Where:-

- M: Community size
- S: Dividing the standard class corresponding to the level of significance 0.95 any apportionment of 1.96 to 0.05 error rate
- P: Ratio of availability of property which is 0.50
- Q: The remainder of the property which is 0.50

- Selected sampling criteria:

Women eligible for inclusion in the study sample was had the following eligibility criteria:-

- At reproductive age (18 - 40 years).
- Women must have a current family planning method.
- Women who should had one or more family planning method previously, so researcher asked every woman if she had a previous family planning method in past.
- e.g. In El Markaz El Sehy in Menouf women come from every village around Menouf, they are unknown to the nurse in the family planning clinic, so the researcher asked every one

if she had a previous family planning method before the current method or not.

- Researcher made more effort & time to collect data.

1- Tools of data collection: the data were collected using the three following tools

It was developed by the researcher, based on reviewing related literatures, magazines and supervisors opinions, written in Arabic language:

A questionnaire sheet was used to collect the data required for this study, It was aimed to identifying the factors of switching from one family planning method to another in rural areas.

i. - First tool: An interview questionnaire: it was developed by the researcher based on literatures reviewing it was consisted of three parts:

▪ **Part 1:-Socio Demographic data of the study sample:**

It including: age of woman and her husband, age of woman at marriage, duration of marriage, job status for woman, level of education to both woman and her husband, husband's work, Family income, Place of residence, family type, as well as the Number of woman's pregnancies, and the number of children that woman have (questions, 13).

▪ **Part 2:-** it was designed to assessing woman's knowledge regarding to family Planning methods in rural areas, It including:-

Definition of family planning, benefits of family planning, family planning methods that woman's know, the advantages, disadvantages (side effects) and risks of different family Planning methods as loop, pills, capsule, injection, and condom, the place that woman will go to it if she suffering from any risk signs during the use of any family Planning method(questions, 18).

❖ **Scoring system for knowledge:-**

The scoring system of knowledge ranged between three categories (1-2-3) for every items for every point, score (1) for incorrect knowledge, (2) for incomplete and correct knowledge and (3) for complete and correct knowledge.

The total score for all item related to knowledge:

Which is consisted of 18 items is categories in to three level as following:

- Poor knowledge = (50%
- Average knowledge = 50: (70%
- Good knowledge =)70%

▪ **Part 3:**

This part was intended to assess the factors that led women to change the family planning method and using another one, it includes (13 items):

First: Data about the current and previous family planning methods as:-Type of current family planning method, family planning methods that woman used previously, the duration of using these previous method, the place that she was get these previous method,ect.

Second: The reasons that led to changing the method of family planning and using another method as: the reason of stopping previous family planning method (side effects, complications or serious medical problem, Other causes.....ect) and the types of them.

The second tool:

This tool was intended to assess the physical status of the woman who changed a method of family planning to another in rural areas, It consists of two parts (8 items) including:

First part: Laboratory investigations and tests (to be measured by the researcher/from the woman's files) it includes 4 items:

Weight of woman, tall of woman, Blood pressure (mm/Hg) (measured by the nurse or the researcher), Hemoglobin of woman (made in laboratory at the same time or from women's file).

Second part: - Current complaint of woman who changed a method of family planning to another it include 4 items: - chronic diseases that woman can suffering from it, its type &duration, current complaint

The third tool: This tool was intended to evaluate the satisfaction of the beneficiaries of family planning for the services provided to them it includes 16 items.

ii. Operational Design

The operational design includes preparatory phase, validity, ethical consideration, pilot study and field work.

1- Preparatory Phase

It was included reviewing of local and international related literature about the various aspects of the research problem. This helped researcher to be acquainted with the magnitude of the problem, and guided her to prepare the required data collection tools.

2- Validity and reliability

Validity

It was established for face and content validity by a panel of five experts that reviewed the tools for clarity, relevance, comprehensiveness, understanding, applicability and according to their opinion some modifications were applied.

Face Validity verifies that the instrument looked like, it was valid or gave the appearance of measuring the content

desired for a study. **Content-related validity** examine the extent to which the method of measurement includes all the major elements relevant to what is being measured (*Burns & Grove, 2009*).

Reliability

Reliability testing was done using Cronbach's alpha test that measures the degree of reliability for the entire form.

Ethical consideration:

Prior to start, an ethical approval on the study protocol was obtained from the scientific research ethical committee of the faculty of nursing, Ain Shams University, and research ethical committee from Directorate of Health in Menoufyia, and Menouf Health Department. The aim and the nature of the study was explained to each woman and oral informed consent was obtained from them, each woman was reassured about the anonymity and confidentiality of any obtained information, and was briefed about her right to refuse or withdraw from the study at any time without giving reason.

Pilot study

A Pilot study was carried out on 10 women, for testing clarity, arrangement of the items, applicability of the data collection tools and time consuming for each tool. Women recruited in the pilot study were excluded from the current study subjects.

Fieldwork

The researcher visited the selected setting regularly for 2 days / week for collecting data at Saturday & Tuesday, the actual fieldwork extended from the middle of September to the middle of December 2017. Time needed to complete the interview questionnaire sheet was from 15-20 minutes in the average, from 8 A.M to 2 P.M, about 15 to 20 sheets per day.

At the beginning of interview the researcher start to introduce herself, briefly

explains the study objectives, orients the women under study to the kind of questions then consent from women were obtained.

Selected primary health care units for the study included Fisha El Kobra, KafrFisha, Kamshosh, and El Markaz El Sehy in Menouf.

Administrative design

Firstly an approval were obtained from head of head of Community Health Department then an official approval were issued form dean of Faculty of Nursing, Ain Shams University to the Directorate of Health in Menoufyia, Menouf Health Department. Explaining the aim of the study to get the permission for data collection from selected primary health care units.

Statistical Design

The collected data were organized, categorized, tabulated using the statistical package for social sciences, version 20.0 (SPSS Inc., Chicago, Illinois, USA). Quantitative data were expressed as mean \pm standard deviation (SD). Qualitative data were expressed as frequency and percentage.

The following tests were done:

- Chi-square (χ^2) test of significance was used in order to compare proportions between two qualitative parameters.
- The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the p-value was considered significant as the following:
 - Probability (P-value)
 - P-value <0.05 was considered significant.
 - P-value <0.001 was considered as highly significant.
 - P-value >0.05 was considered insignificant.

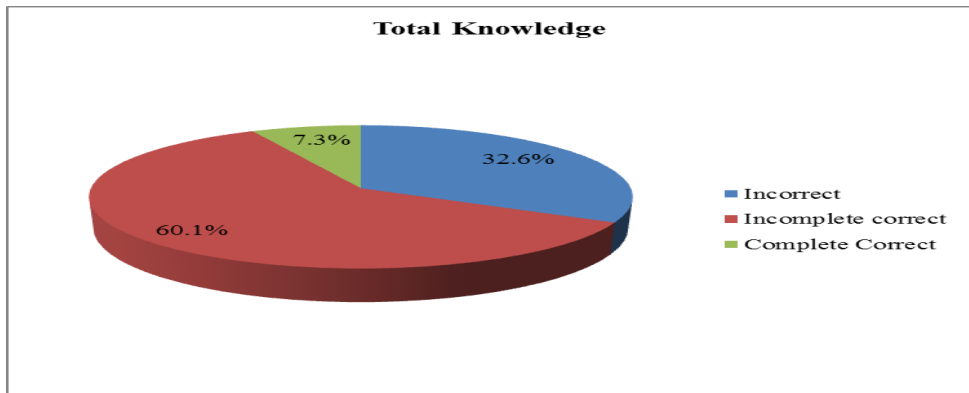
Results

Table (1): Number and percentage distribution of woman’s according to theirLevel of total knowledge about family planning methods in rural areas (N=368).

Total Knowledge	No.	%
Incorrect	120	32.6
Incomplete correct	221	60.1
Complete Correct	27	7.3
Total	368	100.0

Table (1): This table shows the percentage distribution of knowledge among women included in this study. As regards to the total knowledge incorrect (32.6%), incomplete correct (60.1%) and complete correct (7.3%).

Fig. (1): Percentage distribution of woman’s according to their total knowledge about family planning methods in rural areas (N=368).



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Table (2): Relation between women's long acting methods and short acting regarding current family planning methods and their demographic characteristics (n=368).

Demographic Data	Current family planning methods				Chi-square test	
	Long acting methods (N=207)		Short acting methods (N=161)		x ²	p-value
	No.	%	No.	%		
1- Age of the wife						
< 20 years	4	1.9%	4	2.5%	0.347	0.841
From 20 to 30 years	101	48.8%	82	50.9%		
30-40 years	102	49.3%	75	46.6%		
2- Age of the wife at marriage						
< 18 years	15	7.2%	26	16.1%	10.418	0.015*
From 18 to 20 years	100	48.3%	65	40.4%		
20-30 years	86	41.5%	60	37.3%		
≥ 30 years	6	2.9%	10	6.2%		
3. Duration of marriage						
Less than 5 years	38	18.4%	52	32.3%	10.193	0.006*
Less than 10 years	69	33.3%	50	31.1%		
≥ 15 years	100	48.3%	59	36.6%		
4. Wife's education						
Illiterate/ reads and writes	26	12.6%	22	13.7%	7.739	0.049*
Primary / preparatory school	16	7.7%	26	16.1%		
Diploma	103	49.8%	77	47.8%		
Higher education (university)	62	30.0%	36	22.4%		
5. Wife's work						
Works	118	57.0%	63	39.1%	11.577	<0.001**
Doesn't work	89	43.0%	98	60.9%		
6. Age of the husband						
< 20 years	1	0.5%	4	2.5%	6.463	0.091
From 20 to 30 years	60	29.0%	48	29.8%		
30-40 years	79	38.2%	72	44.7%		
≥ 40 years	67	32.4%	37	23.0%		
7. Education husband						
Illiterate/ reads and writes	26	12.6%	26	16.1%	2.586	0.460
Primary / preparatory school	39	18.8%	22	13.7%		
Diploma	95	45.9%	79	49.1%		
Higher education (university)	47	22.7%	34	21.1%		
8. The husband's work						
Employee	96	46.4%	55	34.2%	8.644	0.034*
Farmer	14	6.8%	14	8.7%		
Free works	65	31.4%	72	44.7%		
Worker	32	15.5%	20	12.4%		
9. Family income						
From 300-600 pounds	36	17.4%	30	18.6%	5.197	0.158
From 600 to 1000 pounds	44	21.3%	44	27.3%		
More than 1000 pounds	127	61.4%	87	54.0%		
10. Place of residence						
Rural	189	91.3%	143	88.8%	0.633	0.426
Urban	18	8.7%	18	11.2%		
11. Family Type						
Nuclear	126	60.9%	90	55.9%	0.922	0.337
Extended	81	39.1%	71	44.1%		
12. Number of woman's pregnancies (gravity)						
Once	8	3.9%	18	11.2%	7.475	0.024*
2 times	70	33.8%	48	29.8%		
Three times or more	129	62.3%	95	59.0%		
13. How many children do you have						
One child	15	7.2%	18	11.2%	2.635	0.268
Two children	68	32.9%	58	36.0%		
≥ 3 children	124	59.9%	85	52.8%		

Table (3): Relation between level total of women's knowledge and their side effects

/medical problems (n=368).

Side effects and medical problems	Total Knowledge						Chi-square test	
	Incorrect (N=120)		Incomplete correct (N=221)		Complete Correct (N=27)			
	No.	%	No.	%	No.	%	x2	p-value
Occurrence of side effects	54	45.0%	64	29.0%	11	40.7%	14.220	0.007*
Medical problems	49	40.8%	108	48.9%	7	25.9%		
Others	17	14.2%	49	22.2%	9	33.3%		

*p-value <0.05 S; **p-value <0.001 HS; p-value >0.05 NS

Discussion

Part1: Socio-demographic characteristics and history of the studied subjects:

Regarding to socio-demographic characteristics (table 1) the present study showed that, the age of women in the 4th selected primary health care units average from under 20years & up to 40 years, and found that the percentage of women who included in this study under 20 years (2.2%), From 20 to 30 years (49.7%),and from 30-40 years (48.1%). this finding was supported by *Ministry of Health and Population, Egypt (2014)*.who found that in a study about population in Egypt, 18 % of the respondents were under age 25, 41% were in the 25-34 age group, and a similar percentage were age 35 and over that were at the reproductive age.

Part 2: woman's knowledge regarding to family planning methods:

In relation to women's knowledge table (2-3&figure 1), the present study revealed that third to five of women who participate in this study had incomplete knowledge about family planning methods while one third had wrong knowledge about family planning methods (misconception). this result agree with *Egypt Demographic Health Survey (2014)*, who found that Knowledge about family planning methods is universal among currently married Egyptian women, With regard to specific methods, almost all currently married women have heard about the pill, IUD, and injectables. Nine in ten married women know about the implant. More than seven in

ten women know about female sterilization (74 percent), and half have heard about condoms. Prolonged breastfeeding is the most widely known traditional method (72 percent).

Conclusion

In the light of the main study findings, it can be concluded that, third to five of women who participate in this study had incomplete knowledge about family planning methods while one third had wrong information about family planning methods (misconception).Informing users about contraceptive side effects through proper counselling is still a challenge to be addressed. Users were not informed of side effects to women not allowing them to make informed choices and thus increasing the probability of discontinuation.

Recommendation

The following recommendations were inferred from the study:

- Different health educational programs for health care provider based on their assessment regarding family planning information to promote level of their knowledge.
- Raising awareness for women through booklets and brochures to prevent stopping or changing family planning methods.
- Follow up periodically especially for those suffering from side effects or other any health problem
- Further research for this problem regarding women is needed.

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