

Training Modules for Nurses Facing Obstacles for Counseling at Giza Family Planning centers

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Abstract

Background: Family planning is the decision-making process by couples together to determine the number of children that they would like to have in their life time and the age interval between children (*Alemayehu et al., 2020*). They need to have the right information on when and how to get and use methods of their choice without any form of coercion. Nurse plays an important role in overcoming the obstacles for family planning through using evidence based practice derived from empirical research and implemented into clinical practice that consider particular way of performing nursing care in right way with cost effectiveness. The nurse a crucial role in family planning counseling, plays for human resource element in health care Organization and form the back bone of the health system in the public health sector. Their performance have a direct effect on quality of health care so that, the country relies heavily on nurses for service delivery, their performance is critical for the successful provision of health care productivity. In addition the nurse is a key role in the promotion of women reproductive health, assessment of health care workers be performance is crucial closely links with the productivity and quality of care provision with in health care. Counselling is face to face communication with client or couple in order to help them arrive at voluntary and informed decision. **Aim of the Study:** to assess the effect of training modules for nurses' facing obstacles for counseling at Giza family planning centers. **Study design** Intervention research. **Sample** random sample of was used **Setting:** The study was conducted at the Maternal & child health centers in Giza governorate of 4 centres were allocated **Tools of data collection Structure Interviewing Arabic questionnaire consist of 3three parts I)General sociodemographic, II) Knowledge about family planning counseling. Part III: this part will be used to assess : (pre/post) Obstacles facing nurses during counseling and family planning in MCH as shortness of staff, crowding beneficiaries and shortness of time ... etc. nurses response scored by three likert scale (always, sometimes and never) 3,2,1 respectively. Results** of the study indicated that nurses total knowledge and total obstacles pre program was-0,713 p=.000, while the nurses total knowledge and total obstacles post program -0,786 p=.000. **Conclusion:** These results support the research hypothesis the implementation training modules for nurses facing has positive effect on overcoming obstacles for counseling at Giza family planning centers **Recommendations:** Implementation of Training Program Nursing protocol at family planning clinic at different family planning services.

Key words: Maternal and child health staff nurses- Knowledge –Obstacles – Counselling – Family planning.

Introduction

Family planning is the decision-making process by couples together to determine the number of children that they would like to have in their life time and the age interval between children (*Alemayehu et al., 2020*). So, both a couple have equal rights to decide on their future fertility, their future children. So, they need to have the right information on when and how to get and use methods of their choice without any form of coercion. Therefore, family

planning helps mothers and children enjoy the benefits of birth spacing and having planned pregnancies (*Miller and Babiarz, 2016*). The need for controlling fertility in Egypt has long been established. High population growth is a major constraint that faces policymakers seeking to achieve Egypt's development goals (*Badamasi, 2018*). The Government of Egypt has identified population growth as one of the biggest challenges facing the country and has committed to strengthening the family planning and reproductive

health services on a national scale (*Sales et al., 2019*). Moreover, they are found many obstacles that affect many women to receive family planning services such as lack of effective communication and inexperience among healthcare worker, shortness of staff, crowding beneficiaries, shortness of time at family planning clinics and no waiting area. In addition to, lack of knowledge among women and nurses, individual abilities and the lack of organizational support of a culture safety (*Elkaluby & Mohamed, 2019*). Family planning counseling is defined as a continuous process that the counselor nurse provide to help clients and people with correct and relevant information to arrive at informed choices about the size of their family (*Tang et al., 2017*). Thus, ensuring access for all people to their preferred contraceptive methods advances several human rights including the right to life, liberty, freedom of opinion and express their feeling as well as bringing significant health and other benefits (*Kantorová et al., 2020*). Nurses play an important role in overcoming the obstacles of family planning through using evidence based practice derived from empirical research and implemented into clinical practice that consider particular way of performing nursing care in right way with cost effectiveness (*Miller et al., 2017*).

Nurse as a Counselor is a type of client-provider interaction that involves two way communications through counseling sessions between a health care provider, woman and her partner for the purpose of confirming and facilitating an informed decision by the client or helping the client address problems or concerns (*WHO, 2019*). Therefore, counseling is the main way that health care workers support and safeguard the client's rights to informed and voluntary decision-making. Moreover, counseling for family planning helps clients choose and use family planning methods that suit their needs (*WHO, 2016*). Training modules are a sort of education that will be improve nurses knowledge and skill regarding counseling about family planning. The training can be based at various level with emphasis on improving the health of woman and their families regarding the importance of informed reproductive choices is that the modules and education of health care workers in developing countries on public health and programmatic

approaches for family planning. The training can be based at various levels with emphasis on the importance of informed reproductive choices (*Shorey et al., 2019*).

Training modules are opportunities for staff to see how information can be used in the health system to determine deficiencies that in need for correction, raising staff nurses appreciation of strengths, weaknesses of services and motivation for a continuing improvement of the quality of care, getting the staff to appreciate the need for thorough collection of information and the importance of its reliability for sound management of activities and programs, (*Nandi et al., 2020*).

Significance of the study:

According to the *Ministry of Health (2019)*, Egypt is one of the most populous countries in the Middle East as the birth rate is constantly increasing, although universal family planning methods are widely promoted. The Ministry of Health aims to provide 50, 000 preachers with an essential training to raise awareness of the negative impact of population growth.

So the current study aimed to investigate obstacles for counseling in family planning centers

Aim of the study:

The aim of the study is to assess the effect of training modules for nurses facing obstacles for counselling at Giza family planning centers, through

Identify the obstacles facing nurses related to counseling about family planning. Develop and implement a counselling training modules for nurses at Giza family planning centers . Evaluate the effect of training modules on the nurse's skills for resolving the obstacles facing counselling.

Research Hypothesis:

Training modules will improve nurse's skills for resolving obstacles regarding family planning counseling at Giza family planning centers.

The subject and methods of the current study were discussed under the following main four designs:

Research Design

Intervention - design was used to conduct this study.

SUBJECTS AND METHODS

Study Settings

The study was conducted at family planning centers in Giza Governorate. The total number of the centers were 27 and 200 nurses are working in these centers. The centers had been allocated according to their district location. Through a multistage randomized sampling technique, 4 centers were allocated: Meet Oqba, El mohandessen, Warrak el Arab and El agouza center.

Sample size:

The study included the nurses working at the previous mentioned family planning centers and were directly communicating with the women seeking family planning services. The numbers of nurses at the allocated centres were 40 nurses

Tools of data collection:

Tool (1): Structured Interviewing Questionnaire Sheet: that was developed by the researcher after reviewing the relevant literature. **It's divided into the following parts:**

Part I: designed to assess Socio demographic characteristics of nurses such as age, level of education, years of experience, qualification, place of residence Questions from (1-5).

Part II: This part was designated to assess level of Nurse's knowledge (**Pre/post**) regarding women counselling for family planning at MCH, which included 22 questions as knowledge about family planning (8 questions) as concept of family planning, different methods of family planning...etc., family planning counseling (11 questions) as Have information about the family planning counseling, types of family planning counseling, participated in giving family planning counseling...etc. knowledge about skills of counselors (3 questions) as know what skills a counseling nurse should have, Practicing a profession in giving family planning counseling ...etc.

Knowledge Scoring System: Each questions scored as correct answer which equals 3 score and incomplete answer equals 2 score incorrect.

Answer equals 1 score. Nurses' score was summed and converted into a percent score. It was classified into 3 categories:

- Good knowledge if score > 70%.Average knowledge if score from 60-70%,Poor knowledge if score <60%.

Tool (2): Obstacles facing nurses' during family planning counseling at MCH: (Pre/post)

Obstacles faced nurses during family planning counselling at MCH as Barriers related to infrastructure, work environment.Barriers related to contraceptive methods domains,barriers related to the recipient,barriers related to counseling service providers

Knowledge Scoring system: Nurses response scored by three Likert scale (always, sometimes, and never) 3, 2, 1 respectively. These scores were summed up and converted into a percentage score. It was classified into 3 categories:

- **High obstacles:** if score $\geq 70\%$
Moderate obstacles: if score < 70:50,**Low obstacles:** if score < 50 **Supportive Material** In form of Arabic Training Modules for Nurses Facing Obstacles for Counseling about Family Planning center:

Arabic Guidelines was developed by the researcher included(concept of reproductive health, concept of family planning,concept of family planning counseling, importance of counselling family planning for mother and family health,providing counselling service reproductive health, basic items of counselling, aim of counselling in family planning, types family planning, types of counseling, criteria of nurse as a counselor, types of obstacles facing the nurses as a counselor at family planning clinic, ways to overcome on these obstacles),it was distributed on the nurse's to assess the impact of it.

Content Validity:

Validity: the revision of modified tools was revised by(joury committee)3 experts in Maternity and neonatal health nursing speciality to measure validity of tools and necessary modifications was done according panel judgement.

Reliability:

Reliability analysis by measuring of internal consistency of the tool through Cronbach's Alpha test.

Ethical Considerations:

The research approval was obtained from the ethical committee of the faculty of nursing Ain Shams University. The researcher was clarified the objectives and aim of the study to students included in the study before starting.

Oral consent was obtained from the nurses before inclusion in the study; a clear and simple explanation was given according to their level of understanding all the gathered data was confidential.

II. Operational Designed

It included the preparatory phase, pilot study and fieldwork.

A. The Preparatory Phase

This phase included reviewing of current and past, local and international related literature.

B. Pilot Study

The pilot study was carried out on **10%** those represent (**4**) of nurses in order to test the applicability of the constructed tools and the clarity of the questions that was included in the study.

C. Fieldwork

Data were collected from the previous mentioned setting as the researcher attended the setting for three days/week from 9 am – 1 pm. The researcher explained the aim of the study to the participant and reassured them that information collected were treated confidentially and that were used only for the purpose of the research through a booklet has been made after the stages preparation, review and implementation were carried out with obstacles measured and identify to way overcome them and the reaserch firstly interviewed the nurses at the perviously mentioned setting

Training Modules content:

1st session: about family planning concept of family planning, benefit of family planning , differency method of family planning.

2nd session covered family planning services

3rd session focused on obstacles family planning they have facing and how to overcome it

Evaluation phase for nurses mointering nurses during counseling &how they were dealing with obstacles &overcome it.

Training modules contents:

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Statistical design:

The collected data were organized, coded, tabulated and analyzed by using appropriate statistical test as "Chi square", T test for comparing between related sample, and R test for number and percentage distribution, by using the Statistical Package for Social Science (SPSS), version 23 to determine if there were statistically significant relations. P- Value = less than 0.05 was considered significant and less than 0.001 was considered as highly significant.

Results

Part I. Socio-demographic characteristics of the studied nurses'

As shown in **Table (1)**, this study is conducted on 40 nurses. Regarding their socio-demographic characteristics, almost half of them (47.5%) range in age between 20 to less than 29 years old; with mean age \bar{x} S.D 33.0±0.15 years old. More than two thirds of them (70.0%) are married. Nearly half of them (45.0%) have more than 10 years of experience with mean \bar{x} S.D 9.12±0.67. In addition Level of education, less than half of them (42.5%) are technical nurses, while more than one third of them (37.5%) have nursing diploma. Moreover, nearly three quarter of them (72.5%) are from urban area. showed the personal data of the studied nurses, 47.5% were aged 20-<30 years old with married of age 70% of the were nearly half of the had >10 years work experience with nurses.

Part II. Nurse's knowledge regarding counseling women for family planning at MCH

Table (2) Illustrates the studied nurses' knowledge about family planning at pre and post intervention. It shows that there is a marked improvement in nurses' knowledge about family planning post intervention with a highly statistically significant difference ($P < 0.01$) between pre and post intervention as regard all features registered except "information on the concept of family planning", there is no statistically significant difference between pre and post intervention ($P=0.128$).

at less than one quarter (22.5%) of the studied nurses have good level of total knowledge about counseling women for family planning at MCH pre intervention,while (87.5%)got good knowledge post intervention with high statistically significant difference between pre and post intervention.

Table (3) Illustrates that less than one quarter (22.5%) of the studied nurses have good level of total knowledge about counseling women for family planning at MCH pre intervention,while (87.5%)got good knowledge post intervention with high statistically significant difference between pre and post intervention.

Part I II: Obstacles facing nurses' during counseling and family planning in MCH

Table (4) Illustrates the total obstacles that facing nurses during counseling and family planning in MCH. It reveals a statistically significant difference ($p < 0.05$) between pre and post intervention as regard all features registered.

Part IV. Relation between the studied variable.

Table (1): Number and percentage distribution of the studied nurses' according to their personal information (n=40).

Personal information	N	%
Age		
20-<30	19	47.5
30-40	10	25.0
>40	11	27.5
$\bar{x} \pm S.D$ 33.0 \pm 0.15		
Marital status		
Single	12	30.0
Married	28	70.0
Years of experience		
1-<6 years	10	25.0
6-10 years	12	30.0
>10 years	18	45.0
$\bar{x} \pm S.D$ 9.12 \pm 0.67		
Level of education		
Nursing diploma	15	37.5
Technical institutes of nursing	17	42.5
Bachelor degree of nursing	7	17.5
Post graduate	1	2.5
Residence		
Urban	29	72.5
Rural	11	27.5

Table (5) Reveal a high statistical significant relation between nurses' total knowledge regarding counseling post education program and their age, years of experience and level of education with ($X^2=12.90$, $P=.001$), ($X^2=13.08$, $P=.000$) and ($X^2=12.50$, $P=.002$) respectively.).

Table (6) Shows is a high statistical significant relation between total obstacles post education program and nurses age, years of experience and level of education and married with ($X^2=9.682$, $P=.003$),($X^2=8.325$, $P=.008$)& ($X^2=12.35$, $P=.001$) respectively.

Part V: Correlation between total knowledge obstacles.

Table (7) Illustrates that, there is a high statistical significant negative correlation between the studied nurses' Total knowledge and Total obstacles pre-program with ($r=-0.713$, $p=.000$).

Table (8) Reveals that, there is a highly statistical significant negative correlation between the studied nurses' Total knowledge and Total obstacles post-program with ($r= - 0.786$, $p=.000$).

Table (2): Nurses' knowledge about family planning pre& post intervention (n=40).

Items	Pre- test		Post- test		Chi Square	
	N	%	N	%	X ²	p-value
Concept of family planning					2.365	0.128
Yes	37	92.5	40	100.0		
No	3	7.5	0	0		
If yes, the concept						
Complete correct	10	27.0	34	85.0	13.80	.000**
Incomplete correct	14	37.8	4	10.0		
Incorrect	13	35.2	2	5.0		
Information about methods of family planning						
Yes	28	70.0	39	97.5	12.70	.001**
No	12	30.0	1	2.5		
If yes, what are the different methods					7.901	.005**
Complete correct	7	25.0	35	89.7		
Incomplete correct	5	17.9	4	10.3		
Incorrect	16	57.1	0	0		
Modern methods of family planning					6.958	.009**
Yes	24	60.0	37	92.5		
No	16	40.0	3	7.5		
If yes, what are modern methods					7.942	.008**
Complete correct	5	20.9	36	97.3		
Incomplete correct	8	33.3	1	2.7		
Incorrect	11	45.8	0	0		
Have information on emergency contraception					6.420	.009**
Yes	31	77.5	40	100.0		
No	9	22.5	0	0		
If yes, then it is emergency contraception					14.47	.000**
Complete correct	8	25.8	35	87.5		
Incomplete correct	5	16.1	5	12.5		
Incorrect	18	58.1	0	0		

** : Highly statistically significant

Table (3) Nurses total knowledge about counseling women for family planning pre& post intervention

Total knowledge	Pre-test (n=40)		Post-test (n=40)		χ ²	(p-value)
	No	%	No	%		
Good	9	22.5	35	87.5		
Average	8	20.0	3	7.5	35.68	.000**
Poor	23	57.5	2	5.0		

** : Highly statistically significant

Table (4): Total obstacles facing nursing during counseling at MCH family planning pre& post intervention (n=40)

Items	Pre- test			Post- test			T- test p-value
	High No (%)	Moderate No (%)	Low No (%)	High No (%)	Moderate No (%)	Low No (%)	
Barriers related to infrastructure, work environment	12 (30.0)	17 (42.5)	11 (27.5)	9 (22.5)	18 (45.0)	13 (32.5)	20.854 <0.05*
Barriers related to tools and equipment	12 (30.0)	13 (32.5)	15 (37.5)	9 (22.5)	14 (35.0)	17 (42.5)	
Barriers related to contraceptive methods	5 (12.5)	7 (17.5)	28 (70.0)	4 (10.0)	6 (15.0)	30 (75.0)	
Barriers related to the recipient	23 (57.5)	13 (32.5)	4 (10.0)	12 (30.0)	11 (27.5)	17 (42.5)	
Barriers related to counseling service providers	19 (47.5)	13 (32.5)	8 (20.0)	13 (32.5)	12 (30.0)	15 (37.5)	
Total	14 (35.0)	13 (32.5)	13 (32.5)	9 (22.5)	12 (30.0)	19 (47.5)	

*Significant at p <0.05. **Highly significant at p <0.01. Not significant at p>0.05

Table (5): Relationship between socio-demographic characteristics of studied nurses' and their total knowledge regarding counseling post education program (n=40).

Items	Total knowledge						X2	P- Value
	Good (n=35)		Average (n=3)		Poor (n=2)			
	No	%	No	%	No	%		
Age	20-<30	18	51.4	0	0	1	50.0	12.90 .001**
	30-40	8	22.8	1	33.3	1	50.0	
	>40	8	22.8	2	66.7	0	0	
Marital status	Single	10	28.6	2	66.7	0	0	2.962 .044*
	Married	25	71.4	1	33.3	2	100.0	
Years of experience	1-5 years	8	22.8	1	33.3	1	50.0	13.08 .000**
	6-10 years	10	28.6	1	33.3	1	50.0	
	>10 years	17	48.6	1	33.3	0	0	
Level of education	Nursing diploma	11	31.4	2	66.7	2	100.0	12.50 .002**
	Technical institutes of nursing	16	45.7	1	33.3	0	0	
	Bachelor degree of nursing	7	20.0	0	0	0	0	
Residence	Post graduate	1	2.9	0	0	0	0	6.283 .179
	Urban	26	74.3	2	66.7	1	50.0	
	Rural	9	25.7	1	33.3	1	50.0	

*Significant at p <0.05. **Highly significant at p <0.01. Not significant at p>0.05

Table (6): Relationship between socio-demographic characteristics of studied nurses' and their total obstacles post education program (n=40).

Items		Total obstacles						X ²	P-Value
		High (n=9)		Moderate (n=12)		Low (n=19)			
		No	%	No	%	No	%		
Age	20-<30	8	88.9	9	75.0	2	10.5	9.682	.003**
	30-40	1	11.1	2	16.7	7	36.8		
	>40	0	0	1	8.3	10	52.7		
Marital status	Single	1	11.1	1	8.3	10	52.7	7.107	.015*
	Married	8	88.9	11	91.7	9	47.3		
Years of experience	1-5 years	9	100.0	1	8.3	0	0	8.325	.008**
	6-10 years	0	0	8	66.7	4	21.1		
	>10 years	0	0	3	25.0	15	78.9		
Level of education	Nursing diploma	8	88.9	5	41.7	2	10.5	12.35	.001**
	Technical institutes of nursing	1	11.1	7	58.3	9	47.3		
	Bachelor degree of nursing	0	0	0	0	7	36.8		
Residence	Post graduate	0	0	0	0	1	5.3	4.950	.550
	Urban	6	66.7	10	83.3	13	68.4		
	Rural	3	33.3	2	16.7	6	31.6		

*Significant at $p < 0.05$. **Highly significant at $p < 0.01$. Not significant at $p > 0.05$

Table (7): Correlation between pre-program (n= 40).

		Total obstacles
Total knowledge	R	0.713
	P	.000**

(**) Statistically significant at $p < 0.01$. *r* Pearson correlation

Table (8): Correlation between post-program (n= 40).

		Total obstacles
Total knowledge	R	0.786
	P	.000**

(**) Statistically significant at $p < 0.01$. *r* Pearson correlation

Discussion:

Family planning implies the aptitude of individuals and couples to anticipate and accomplish their desired number of children by spacing and timing their births. It is achieved through the use of contraceptive methods and the treatment of involuntary infertility. Therefore, family planning helps mothers and their children relish the benefits of birth spacing and having planned pregnancies (*Olubodun et al., 2020*).

Family planning counseling plays a significant role in women's health through help, support women & her partner in choosing the method of family planning that best suits them and support them in solving any problems that may arise with selected methods.

Family planning counseling has a positive impact on women's health by reducing unwanted pregnancies and providing proper gaps between births changes of previous pregnancies and recover from the psychological

stress and physiological (*Seger et al., 2018*). So, nurses play a key role in the promotion of women's reproductive health. Family planning counseling is an important intervention by nurses in the all-healthcare setting as nurses educate consumers about ways to manage their health process more effectively (*said et al., 2022*). Based on this important issue the present study finding was conducted to assess the effect of training modules for nurses facing obstacles for counselling at Giza family planning centers.

The current study result reported that their socio-demographic characteristics, almost half of their age range between 20 to less than 29 years old; with mean age \pm S.D 33.0 \pm 0.15 years old; More than two thirds of them are married while, nearly half of them have more than 10years of experience with mean 9,12. \pm 0.67.

The current study finding was contradicted with **Mostafa et al., (2020)** who conducted across sectional study titled by "Assessment the Nurses' Knowledge about Family Planning Methods in Health Centers in Lattakia" and reported that more than half of the studied nurses their age older than 45 years. This difference could be due to the difference in population & setting of the study.

Regarding the educational level, less than half of them are technical institute, while more than one third of them have nursing diploma. This study finding was in the same line with **Griffin s., et al. 2018**, Who conducted across sectional study on 450 health care workers the study titled by (Assessment of family planning counselling provided for post-partum women and associated factors in Addis Ababa Ethiopia and reported that the majority (80%) of nurses had a nursing diploma. This agreement may be explained by that most nurse who holds a diploma or technical institutes of nursing are distributed in health care places such as clinics, and maternal and child health care centers.

Regarding nurses' knowledge about family planning counselling before and after implementation of training modules the data analysis revealed that nurses' total knowledge score there was highly statistically significant improvement post-implementation of training modules.

Regarding total knowledge pre and post intervention about family planning counseling showed that less than one quarter of the studied nurses have good level of total knowledge about family planning counseling before implementing the training modules, while three quarter of study nurses was improved level of total knowledge after implementing of training modules. This might be due to the studied nurse after implementing training modules become interested to advance their knowledge and their roles as family planning counselors and also the immediate effect of the implementation of training modules has a positive effect on overcoming obstacles facing nurses during family planning counseling; in addition to the developed Arabic booklet that contains on all required & recent knowledge regarding family planning counselling that attributed to it.

This study result agrees with **Mohamed, (2020)** who conducted study titled by Impact of

educational program on Knowledge, attitude and practices of nurses towards family planning counseling in areas of low and no family planning services in Giza governorate and reported that the total knowledge score of the participants was significantly improved after implementing the educational program from poor to good level ($p.value = <0.002$). Regarding the mean of obstacles related to counseling service providers, the mean score was improved after-implementation of training modules. This indicates the effectiveness of the implementation of training modules has a positive effect on overcoming obstacles facing nurses during family planning counseling. The same direction is shadowed by **Mahmoud et al. (2021)**, one of the root causes of this shortcoming was a lack of counselling service providers' supervision and training. In order to give information to all postpartum women in both health care setting and community settings, they should undergo on-site systematic training based on the current standards. Moreover, the government must fully support current mass media initiatives that promote family planning services & Supports an increasing the number of nurses have license and specialized in family planning counseling to ensure that every women & her partner are obtained on complete correct knowledge regarding family planning services.

These findings support those of **Abo El-Enen et al. (2019)**, who found that while most nurses asked their clients about their chosen strategy, more than half failed to inform them about other birth spacing options. This indicates that nurses still require additional training. Roughly all of them didn't explicate the approach they chose to the client, and less than two-thirds of them didn't support the client in selecting the best option, but they all determined the date of the return visit as being accurate and complete.

Regarding the obstacles related to contraceptive methods that there is no statistically significant difference ($p > 0.05$) between pre and post intervention as regard to contraceptive methods except "Lack of disinfectants. These results congruent with (**Mkwinda et al., 2022**) who reported that the majority of participants indicated that they had inadequate clinical supplies in their clinics to assist the women which negatively impacted the quality of care provided. This agreement may

be due to services of family planning counselling still until now need to become in a priority. Added to increases awareness through programmed of the Ministry of Health & Population (MOHP) a part of the reproductive health package, and fundamental health care services at the Egyptian Health Sector Program.

Regarding the mean Obstacle related to the recipient, the mean score was improved after implementation of training modules **this may be explained by** inability of nurses to deal with the barriers regarding the women before implementation as a decrease in women's awareness regarding the importance of family planning counselling and also the different cultures of the women consider one of the obstacles during family planning counseling. While, after implementing of training modules which help the nurses to having a positive effect on overcoming obstacles facing nurses during family planning counseling.

The present study finding similar to the findings of *Mahmoud et al. (2021)*, who conducted a cross-sectional study on 237 women the study titled by (Measuring quality of family planning counselling and its effects on uptake of contraceptives in public health facilities) & discovered that the majority of health care nurses were frustrated by having to deal with clients' persistent misconceptions and rumors. This similarity in current study finding could be due to, their spread is in part due to Egyptian women's lack of awareness regarding contraceptives, which is often acquired from unreliable sources including family, peers, other patients at medical institutions, or careless sources.

The current result was in the same line agreed with study by *Faraz, (2017)* who conducted descriptive cross-sectional study about "Novice nurse practitioner workforce transition and turnover intention in primary health care" and revealed that most of studied nurses reported lack of interest when giving advices for recipient women of family planning counseling services was common barriers related to the recipient and recommended performed nursing intervention program to remove their issues.

The current study results also showed that there was a statistically significant improvement in all nurses' family planning

counselling practices after implementation, demonstrating the efficacy of training modules and also demonstrating the high level of willingness among nurses to enhance their family planning counselling practices.

These findings are in line with those of *Elshazly et al. (2016)* who found that nurses performed better than physicians when it came to counselling patients. This may be explained by the fact that nurses in the study group had greater experience overall than physicians did, and by the fact that nurses were more likely than physicians to attend FP counselling training courses.

Additionally, *Al-Shawakh et al(2020)*, who findings that nurses had a good level of knowledge and a low level of practice for family planning counselling and that there is a relationship between the two outcomes concur with earlier findings.

Regarding relationship between socio-demographic characteristics of studied nurses & their total knowledge regarding counseling post education program the present study clarified that there is a highly statistical significant relation between nurses' total knowledge regarding counseling post education program and their age, years of experience and level of education with respectively. While, there is no statistically significant relation with their residence pre-education program.

The current result congruent with *Ahirwar et al., (2021)* who conducted a cross sectional study titled by assessment of knowledge, attitude and Practices of health care workers towards contraceptive services and reported that there is No statistically significant P values were (P= 0.431; P= 0.644; P= 0.066; P= 0.132) respectively between level of knowledge and socio demographic characteristics as: age, marital status, level of education and occupation of the study before implementing the program while found that positive statistically significant between nurses' knowledge and socio demographic characteristics as: marital status, qualification and occupation with p-value (≤ 0.05).

Regarding the relationship between socio demographic characteristics of studied nurses' and their total obstacles

post-education program, the present study showed that, there is a highly statistically significant relation between nurses' total obstacles post education program and their age, years of experience and level of education. The current study finding agreed with a study conducted by *Ndlebe S., (2020)* titled by assess the socio-demographic factor and Knowledge and Practice of Nurses about Family Planning Counselling in Health Care Centers – Lattakia & reported that there is a highly statistically significant relation between nurses' total obstacles education program and their age, years of experience and level of education.

Regarding total score the present study showed that, there is a highly statistically significant positive correlation between the studied nurses' Total knowledge and Total obstacles. this finding might be due to nurse had significantly higher perceived barriers seek to finding and reviewing evidence than other counterparts.

This result in same line agreement with *Youssef et al., (2018)* who conduct a cross sectional study design including the two group Egypt and Jordan the study about " Egyptian and Jordanian nurse educators' perception of barriers preventing the implementation of evidence-based practice" and founded that there is a highly statistically significant positive correlation between the studied nurses' Total knowledge and Total obstacles at ($p=.000^{**}$). **This agreement could be due to** role of nurse as educator may be offer the needs that support promoting the utilization of family planning counseling services. Added to, nurse as educator work with comprehensive and curriculum development to draft robust method should be integrated facilitate with philosophy and mission to be central part nurses' education, teaching process and decision making.

Regarding the total obstacles facing nurses pre and post implementation of nursing protocol, data from the current study showed a high statistically significant decrease in total obstacles that face nurses' during family planning counseling post-implementation. This may be attributed to the training program's success and applicability, which helped to remove barriers that nurses

have when providing family planning counseling .

Conclusion:

Based on results , more than half of the group had moderate knowledge level, regard counseling of family planning process .Furthermore, the current study concluded that the implementation of training module has a positive effect on improving nurses knowledge and overcoming obstacles facing nurses during counselling pre and post intervention. Also there was a highly statistically significant relation between the level of knowledge pre and post intervention and scores regarding factors associated with obstacles of counselling at family planning services.

Recommendations

In the light of the research findings, the following recommendations are suggested:

- Integrate Chapter in under graduate curriculum about obstacles facing nurses for family planning counselling and its effect on women's reproductive health &controlling over population.
- Implementation of Training Program and Nursing protocol at family planning clinic at different family planning services.

Further studies recommended:

- Further studies include the effect of the implementation of training program / module on family planning methods continuation use.
- Further studies to cover large samples of nurses from different geographical areas to generalise the result in Egypt.

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