DOI: -----

MNJ
Menoufia Nursing Journal
Faculty of Nuring
Menoufia University

Women's Satisfaction Regarding Quality of Family Planning Services at Maternal and Child Health Centers

Eman M Mashal¹, Aida A El-Razek A El-Rahman², Gamila G Ayoub³

¹B.SC in nursing sciences, ²Professor of Maternal and Newborn Health Nursing, ³Assistant professor of Maternal and Newborn Health Nursing, Faculty of Nursing, Menoufia University

Abstract: Background: The provision of high-quality family planning services is critical to the country's long-term viability. Also, as the focus on client-centered health care becomes more important. The purpose of this study was to assess the women's satisfaction with the quality of family planning services at maternal and child health centers. Design: A descriptive research design was used. Sample: It consisted of 600 women using contraceptive methods who attend the family planning clinics.in MCH centers in the period from August2021 to end of October 2021. Instruments of this study were an social characteristics interview questionnaire, and Quality of Family Planning Modified Observational Bruce's key point's women's satisfaction regarding family planning services. Results: The grand total quality of family planning services was 60.5% in addition to the women had low satisfaction level about family planning services. Conclusion: It is important to improve the nurse's knowledge about family planning methods. Recommendation: Continuous training programs to the nurses in family planning clinics to improve their knowledge and practice in the family planning centers are recommended.

Keywords: Women's Satisfaction, Quality of Family Planning Services, Maternal and Child Health Centers.

Introduction

Egypt is undergoing severe socioeconomic changes because of overpopulation difficulties caused by a high fertility rate, which has a detrimental impact on the community's health (Hussein, 2019). Family planning (FP) is essential for women's developing particularly in health, nations. The goal of family planning programs is to promote service usage, delivery, and reach out to new regions. It should meet quality requirements to be effective services (Tumlison, et al., 2017).

Contraception is an essential topic for all couples, and the technique chosen should be based on the preferences and acceptance of both the woman and her partner. The development of a trusting connection with the client and the supply of proper, accurate information about all contraceptive techniques aid this process (Chavane et al., 2016). Improving the quality of services affects women's satisfaction with them, which can lead to greater service use, ongoing FP use, accomplishment of fertility goals, a higher contraceptive

prevalence rate, and a low fertility rate (Bongaarts, 2019). Client satisfaction is one of the most important goals of any health system, but it is challenging to evaluate satisfaction and assess response since consumer satisfaction is influenced by both clinical and non-clinical outcomes of treatment (Agrawal, 2016).

Client feedback is required to highlight problems that must be addressed in order improve health to care. Measuring patient satisfaction necessitates the use of "correct measurements" since they are made up of criteria that include technical, interpersonal, social, and moral elements of treatment (Wood, et al., 2015).

Client satisfaction with family planning services is an important metric that indicates how satisfied a client is with the services provided by healthcare professionals. As a result, it shows the gap between the desired service and the actual service experience from client's the perspective (Askew & Brady, 2020).

Client satisfaction with the services received is a subjective method of evaluating service quality; satisfied clients are expected to return to the health facility to use the services again, to tell others about their positive experience, and to use the prescribed family planning method on a regular basis. Unsatisfied clients, on the other hand, spread unfavorable sentiments to others and stop utilizing family planning services (Agwanda Kimani, 2019).

In defining and measuring the quality of health care, clients play a critical role. The use of the client's perspective in evaluating the quality of services has triggered intense argument. While many stakeholders consider the client's perspective to be an important predictor of health-care quality, others disregard clients' opinions as overly

subjective. In the latter case, how a customer feels is significant, even if the provider's evaluation of reality differs, because, at the very least, clients' subjective assessments of quality can give useful information to assist the provider understand and develop acceptable service standards (Andaleeb, S. 2018).

Significance of the study

Given Egypt's greater population growth rate (2.5%) and higher fertility rate (3.47%) live births/ woman (United Nations, 2017). Despite the presence of family planning services, the contraceptive prevalence rate in Egypt is low. A review of existing literatures strongly suggests that the quality of services provided is an important determinant of acceptance and continuation rates, and thus a major contributor to the increase in contraceptive prevalence rate (Jain, 2018).

Ouality of services is a growing concern at both the world and national levels, particularly in reproductive health (RH) and family planning (FP) services, with the major goals being to protect customers' rights, attract new clients, and maintain efficiency in service delivery. The Institute of Medicine (IOM) has defined quality of care as the extent to which health-care interventions improve health outcomes in ways that are consistent with current qualified knowledge. It also states that quality health care should be safe, client-centered, timely, effective, efficient, equitable, and accessible to all people (Institute of Medicine., 2016). The current study is giving useful and accurate information that health care professionals. policymakers, and management in enhancing the quality of FP services in a timely manner.

Purpose of the Study

The purpose of the study is to assess the women's satisfaction with the quality of family planning services at maternal and child health centers

Research Questions

- 1) What is the level of quality of family planning services in MCH centers at Shebin El-kom city, El-Menoufia, Egypt?
- 2) What is the women's satisfaction level with maternal and child health centers in Shebin El-Kom city, El-Menoufia, Egypt?
- 3) Is there an association between quality of family planning and women's satisfaction?

Methods

Research design:

A descriptive design was used to carry out the present study.

Research Settings:

The study was be carried out in different selected settings (MCH centers in Qebly, Bahary MCH centers and Shiben Elkom Teaching Hospital).

Sampling:

Type of the sample:

A Simple random sample of women attending MCH centers by choosing random day for collecting data and and writing the names of all women in a paper and assigning a random sequential number to each woman, e.g. 1, 2, 3, 4, 5, and so placing them in container then they were picked up randomly until the needed sample size was obtained.

Sample Size:

The total sample size is 600 subjects. To calculate the required sample size, The researcher use the following Equation= Z2PQ/D2, where N = is the required sample size. P is the proportion affected. Q is the proportion

not affected and D is the sampling error. To obtain the required power with alpha of 0.05 and a beta 0.8, a constant Z need to be introduced with the value of 1.96. It is estimated that 600 subjects will be recruited in the study. This sample size was distributed proportionally between the selected setting according to the flow rate as follows: three hundred from MCH center in Oebly, 150 women from Shiben Elkom Teaching Hospital, and 150 women from MCH center in Bahary. All participants were chosen randomly.

Data Collection Instruments:

Throughout the course of the present study, data were collected using instruments, which were developed by the researcher and revised by qualified experts, then tested for validity and reliability. Three instruments were developed and used for data collection.

<u>Instrument</u> <u>one:</u> Interview questionnaire, it was developed from USAID, 2010 to collect information about social characteristics, quality of family planning, measures of infection control and family planning logistics and supplies. It contained two parts:

- Part 1: Socio-demographic characteristics.
- Part 2: Quality of family planning counseling.
- Part3: Measures of infection control in family planning room.
- Part4: Family planning logistics and supplies.

<u>Instrument</u> <u>two:</u> Modified Observational checklist to measure the quality of family planning services: It was developed by USAID (2010) to collect data about:

- Health services organization such as available seating area for clients
- Family planning facilities such as procedure done in private room, special places for hand-washing available in family planning room.

• Family planning methods.

Instrument three: Bruce's key point's questionnaire regarding quality in reproductive health which used to assess the women's satisfaction regarding family planning services. The questionnaire includes 6 aspects to be covered by questions: (A total of 30 questions were prepared for all 6 aspects. A Likert scale was used for responses questions to satisfaction with aspects of services (completely satisfied = 5, satisfied = 4, no view = 3, unsatisfied = 2, completely unsatisfied =1 (Nanbakhsh, Salarilak, Islamloo & Aglemand, 2008).

Pilot study:

A pilot study was implemented to test the applicability of the instruments, the feasibility of the study and to estimate the time needed for data collection. It was performed on 10% of the total sample, which is equal to 60 women. Based on the pilot study results; the researcher rephrased some questions and sentences, and then set the final fieldwork schedule. Sample of the pilot study was excluded from the main sample based on changes done. Pilot study sample was out the sample size.

Ethical consideration:

Approval was obtained from the Ethics Committee of the Faculty of Nursing, Menoufia University. The privacy and confidentiality of data were maintained and assured by getting participants' consent to participate in the research before data collection. Anonymity of participants was granted.

Study procedure (study field work)

- The data were collected over a period of three months from beginning of August 2021 to the end of October 2021.
- Each MCH center took about one month to collect the required data.

Data collection lasted from 8:30 am till 2:00 pm.

- •In Qebly MCH center data was randomly collected from 25-35 women. The second and third center was Bahary MCH center where data was daily collected from 15 -20 women.
- During the initial vision (First session), the researcher started by greeting women, introducing herself and explaining the purpose of the research in order to obtain their acceptance Each participant was informed that participation in the study was voluntary and participants can withdraw from the study at any time.
- After getting the agreement of women to participate in the study, and during the other session they were given the instruments to fulfill the data related to socio-demographic and Quality of family planning counseling, infection control planning family room, Family planning logistics and supplies and questionnaire regarding quality of reproductive health were used to women's assess the satisfaction regarding family planning services.
- During each visit, women were observed and the quality of family planning services were assessed. Health services organization, Family planning facilities and Family planning methods available in each visit and took the mean.

Statistical analysis: -

Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 22. Graphics were done using Excel program.

Quantitative data were presented by mean and standard deviation (SD). It

was analyzed using student ttest for comparison between two means, and ANOVA (F) test was used for comparison between more than two means.

Qualitative data was presented in the form of frequency distribution tables, number, and percentage. It was analyzed by chi-square (χ 2) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood test (if the table was more than 4 cells). Level of significance was set as P value <0.05 for all significant tests.

Results

<u>Table 1</u> show that the current study included 600 women of whom 68.8% aged between 25 to < 30 years with mean of 27.3 \pm 6.4, 52.1% of them not work, and approximately (40%) were had secondary education. As regards their income, more than one half of them were had enough income (55.3%), while 13.2% were had not enough income.

Table 2 demonstrated the efficiency of Family Planning Counseling from the studied women point of view. 7 items showed higher responses with "yes" which percentages ranging 91.2% for the reason of the visit and how to provide assistance." To 71.8%. This revealed that the nurses need more training and education.

Table 3 revealed the measures of infection control and its application in FP room from the studied women point of view. All the 9 items showed higher "yes" responses with which percentages ranged from 82% for closing the room while giving the method" to 93% for There is a box inside the room to put sharp objects." On the other hand, all the 9 items showed lower responses with "no" which percentages ranged from (7% to 18%).

Table 4 showed the Registration and counselling room from the studied women' point of view. All the 7 items showed higher responses with "yes" which percentages ranged from 75.3% for the item "There are transfer letters to other hospitals if necessary." to 93% for clients seen in the center an illustration of the methods of family planning on the walls." On the other hand, all the 7 items showed lower responses with "no" which percentages ranged from 7% to 24.7%.

<u>Table 5</u> showed low mean scores of 3/5 items (60%) which indicates that most women were unsatisfied with choosing a contraceptive method.

Figure 1 demonstrates the quality of counseling (60%), quality of infection control is 58% and Quality of registration is 61% and grand total quality of FP services is 60.5%.

Figure 2 demonstrates high significant association between type of quality of FP provided to women in MCHs at Shebin EL Kom city, and (P<0.0001). satisfaction women Approximately 60% of women reported a good quality of FP services, were satisfied about these services (59.7%), compared to 44.4% among women who reported poor quality of FP services. On the other hand, approximately one quarter of women reported poor quality of FP services and were unsatisfied about these services (22.2%), compared to 3.5% among women who had reported good quality of FP services. The results in this table answered the third research question in the current study

Table (1): Distribution of the studied women according to their Sociodemographic characteristics

Socio demographic characteristics	N0.	%	
Age (Years): 25 - < 30 years	413	68.8	
30 - < 35 years	113	18.8	
≥ 35 years	74	12.3	
Mean ± SD (range)	$27.3 \pm 6.4 \text{ Y.} (25-39\text{Y})$		
Occupation: Work	288	47.9	
Not work	312	52.1	
Education: Illiterate	88	14.7	
Primary education	100	16.7	
Preparatory education	177	29.5	
Secondary education	224	37.3	
University education	11	1.8	
Income: Not enough	79	13.2	
Enough	332	55.3	
Enough & save	189	31.5	
Total	600	100	

Table (2): The Efficiency of Family Planning Counseling from the studied women point of view

Items		Yes		No	
		%	N0	%	
The nurse wash her hands with soap and water before and after giving the family planning method.	531	88.5	69	11.5	
There is a basin for washing hands in the room.	548	91.3	52	8.7	
The nurse' gloves worn while giving the client the FP method.	500	83.3	100	16.7	
The nurse close the room while giving the method.	492	82	108	18	
The nurse use clean and sterile tools.	546	91	54	9	
There is a box inside the room to put sharp objects.	558	93	42	7	
There is a bin inside the room to get rid of the non-sharp waste?	523	87.2	77	12.8	
If yes, the client use the pin as it was clean (N=523).	484	92.5	39	7.5	
If yes, waste dispose safely in the MCH center (N=523)	484	92.5	39	7.5	

Table (3): Measures of infection control and its application in FP room from the women's point of view.

Items	Yes		No	
Accinis	N0.	%	N0.	%
The counselor introduce herself by Surname and Name.	480	80	120	20
The nurse greeting the client.	537	89.5	63	10.5
The service provider prepare women for the medical examination.	504	84	96	16
Women' feel that the service providers gave them all their attention.	507	84.5	93	15.5
The nurse ask client about the reason for the visit and how to provide assistance.	547	91.2	53	8.8
Using visual aids to facilitate the discussion, such as the board on which contraceptives are drawn.	151	25.2	449	74.8
The nurse tell the client about all the available methods.	94	15.7	506	84.3
The counseling room visible and ready and client feel privacy.	528	88	72	12
The nurse listen to client carefully and using body language and nonverbal communication.	89	14.8	511	85.2
The nurse write notes, and she hear client.	431	71.8	169	28.2
The nurse help client to choose the method correctly.	85	14.2	515	85.8

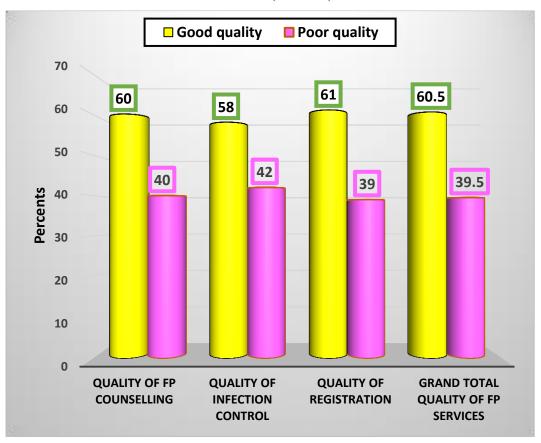
Table (4): Registration and counselling room from the studied women' point of view).

n	ms			No	
		N0.	%	N0.	%
1.	The center has a separate room for registration and advice	504	84	96	16
2.	The nurse register client in the register of cases that use family planning methods.	549	91.5	51	8.5
3.	There are transfer letters to other hospitals if necessary.	452	75.3	148	24.7
4.	Clients seen a guiding rules for family planning in the MCH center.	542	90.3	58	9.7
5.	Clients seen in the center an illustration of the methods of family planning on the walls.	558	93	42	7
6.	Clients have given a card to clarify the methods of family planning.	517	86.2	83	13.8
7.	The nurse explained the follow-up protocol for each method of family planning.	522	87	78	13

Table (5): Satisfaction of studied women about choosing a contraceptive method (N=600)

Items	Mean ± SD	Range	
1. Satisfaction with the method currently used	3.9±0.9	1-5	
2. Satisfaction with the availability of contrace	2.1±0.8	2-5	
The center provides information on contrained the use of contraceptives	lications to 1.9±0.9	1-5	
4. Satisfaction with the cost of contraceptives	3.1±0.7	1-5	
5. The ability of women to choose the method t	hey want 1.0±0.8	1-5	

Figure 1: Distribution of quality of Family Planning services at MCH in Shibin El Kom (N = 600)



■ Good Quality **■** Poor Quality 87.1 90 75 77.2 80 70 60 **Percents** 50 40 25 22.8 **30** 12.9 20 10 0 Unsatisfied No view Satisfied

Figure 2: Association between quality of FP services and women's satisfaction (N=600)

Discussion

Ensuring access for all people to their preferred contraceptive methods advances several human rights including the right to life and liberty, freedom of opinion and expression and the right to work and education, as well as bringing significant health and other benefits. Therefore, all countries should make a double effort to ensure the quality of family planning methods.

We noted that the different assessment instruments used in this study led to different conclusions regarding the quality of family planning services. Observations and women interviews showed differences in quality results. Moreover, the present study revealed that the efficiency of Family Planning Counseling from the studied women point of view., four items showed higher responses with "no" which percentages (74.8%) not using visual aids in explanation the methods, and about 84% of women not informing

about the available methods, (85%) of women complain of poor communication skills for nurses and about (86%) of women said the nurse not helping them in choosing method. This revealed that the nurses need more training and education. require Individuals sufficient knowledge and a variety of alternatives make the appropriate planning decisions.

The findings of present study were like study conducted by, De Silva & Fonseka (2018) in Colombo who examined the quality of care in government FP clinics. They showed that the provider client interpersonal relation had unsatisfactory quality where providers treat clients using irrespective attitude and didn't provide sufficient time to talk with women about their needs.

In contrast, Chavane et al., (2016) In Mozambique who investigated women's satisfaction with family

servicesreported planning those women were completely satisfied as most women reported satisfaction with provider's skills and their experiences. Regarding infection control and its application in FP room from the women's point of view, the present study revealed that all the 9 items showed higher responses with "yes" which percentages ranged from 93% to 82%. It might be due to the Supervisory visits from the ministry of health's infection control section on the family planning clinics. The findings of the present study was in agreement with a study conducted by Taneja, J (2009) who stated that about 75.5% of nurses pertaining to the practice of infection control measures, emphasized that the infection control products help to reduce infections by between 52% & 91%

Regarding the efficiency of services provided by the centers the study revealed that the three places had a room for counseling. These results were expected, given that the ministry of health and population is working hard to improve the quality of family planning services through ongoing educational training programs.

Moreover, the present finding revealed about half of women wait for long time and complain of not having seats. This may be rationalized as increased number of women who visit the centers. This was supported by Wakjira, (2017). who investigated" Assessment of Client Satisfaction on Family Planning Services Utilization." in Ethiopia and reported that longer waiting times (>30 minutes) were the most common source of dissatisfaction among women? In contrast, Sayed, S, et al., (2018) in Damanhur who "Quality investigated of Family Planning Services in Maternal and Child Health Care Centers" They found that women were satisfied with the waiting time (65.7%).

Regarding the availability of the method, the present study highlighted the availability of items of family planning methods within the MCH centers in Shibin ElKom City. All methods of FP were available with a good percentage which range from 75% (IUD) to 86.1% for Combined Pills (estrogen and progesterone). The lowest percentage of availability was "The capsule is placed under the skin (implantation). This result was expected as this method needs a special skill from the health provider to implement the capsule under the skin of women. These findings were also in line with a study conducted in assuit by Abdel-Tawab et al. (2015), who conducted a study to see if public health services in Egypt assist young married women in exercising their reproductive rights

The findings of the present study revealed that 60% of studied women were unsatisfied with choosing a contraceptive method. This may be rationalized as Individuals require sufficient knowledge and a variety of alternatives to make appropriate family planning decisions. In contrast, Abu Elenin (2018) in Tanta reported thatmore than half (64%) respondents reported satisfaction with self-method selection and variety of family planning methods.

Moreover, the present study findings revealed that most women were unsatisfied with the practical skills of service providers (80%) of women. The finding was supported by the study of Rehman et al., (2015) who conducted a study in Jinnah hospital, to assess client satisfaction regarding F.P Services in Reproductive Center; most clients were unsatisfied with the ability of health care providers. The present study revealed that most of women (60%) were unsatisfied with the relationship between service providers and women. This result was in line

with Argago. et al., (2015) in South Ethiopia who concluded that most of women were unsatisfied with interpersonal relationship with care provider?

The present study revealed that most of women were unsatisfied with the follow up visits done by the centers.in contrast, National Health Training Center, (2016) in Nepal where it was reported that about 95.8% of nurses provide information on referral and follow-up visits.

The present study findings revealed many women were unsatisfied with the Information provided to women. This may be attributed to the increased number of women who visit the centers and lack of training programs provided to nurses to update their knowledge.

The present study showed about 71.5% of women were unsatisfied. This may be attributed to the shortage of health-care professionals and the need for ongoing monitoring and training; or practically all providers got training just once during their employment. And all nurses in FP clinics had a diploma, and many physicians had a bachelor's degree or worked as general practitioners.

In contrast, Naser et al., (2016) in Port Said conducted a study entitled "Association between quality of family planning services and client's satisfaction level in maternal and child health centers "there findings revealed that 95.4% of women were satisfied with the service provided? The present study revealed that the grand total quality was 60.5%. This was supported by Sayed et al., (2018) who studied "Quality of Family Planning Services in Maternal and Child Health Care Centers in Damanhur City" and the total quality of services east (66.7%)

Conclusions

In the light of the present study results, it can be concluded that most women had low satisfaction level regarding family planning method at maternal and child health centers. The study found that factors that affect women satisfaction were heavily influenced by the providers of services at family planning clinics, who are then influenced by the services offered to the clinic's clients.

Recommendations

Based on the findings of the present study, the following recommendations are suggested:

- The Ministry of Health should priorities primary health care centers, particularly FP clinics, by implementing service total quality development plans.
- Continuous training programs to the nurses to improve their knowledge regarding contraceptive methods.
- There should be continuous followup and evaluation to the nurse's performance from the ministry of health to MCHs.
- A system for supervision, acknowledgement of good performance, and reward. to should be established to motivate nurses and improve job satisfaction.

References

Abdel-Tawab N., Rabie T., Boehmova Z., Hawkins L., Saher S., A & El Shitany, A. (2015). Do public health services in Egypt help young married women exercise their reproductive rights? International Journal of Gynecology and Obstetrics 130: E52-E55

Abu Elenin, M (2018). "Quality of Family Planning Services, through Client Satisfaction Exit Interview "tanta, Egypt.

- https://www. researchgate. net/publication/340601089
- Agrawal, D. (2016). Health sector reforms: Relevance in India. Indian J Community Med; 31: 220-2.
- Agwanda A. & Kimani A, (2019).

 Assessment of family planning services in Kenya: Evidence from the Kenya Service Provision Assessment Survey. Nairobi.; pp. 1-51.
- Argago, T., Hajito, K. & Kitila, S. (2015). Client's satisfaction with family planning services and associated factors among family planning users in Hossana Town Public Health Facilities, South Ethiopia: facility-based cross-sectional study. Int J Nurs Midwifery.;7:74–83.
- Askew, I, & Brady, M. (2020).

 Reviewing the Evidence and Identifying Gaps in Family Planning Research: The Unfinished Agenda to Meet FP.
- Bongaarts, J. (2019). Can family planning programs reduce high desired family size in Sub-Sahara Africa? International Perspectives on Sexuality & Reproductive Health. 37(4): 209-216.
- Chavane L, Dgedge M, Baily P, Loquiha O, Aerts M, & Temmerman M. (2016). Assessing women's satisfaction with family planning services in Mozambique. J family & reproductive health care.: 1-7.
- De Silva, U. & Fonseka, P. (2018).

 Quality of care in government family planning clinic services in Colombo District. Ceylon Medical Journal 53 (121 12 7. https://doi.org/10.4038/cmj.v53i4.280
- Ghareeb,A, Fouad,A, & Ahmed,S(2017) "Women Satisfaction with Family

- Planning Services in Maternal and Child Health Centers, Assiut City, Egypt." American Journal of Nursing Research, vol. 5, no. 3 79-85. doi: 10.12691/ajnr-5-3-2.
- Hussein, A. (2019). Trends of Fertility Levels in Egypt in Recent Years. A UNFPA study; pp:4-6. Available at: https://egypt.unfpa.org/en/publications/trends-fertility-levels-egypt.
- Institute of Medicine. (2016). In Ullmer C B M. Burke S (Future directions for the national health care quality and disparities reports. Washington, DC: The National Academies Pres s., from https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/finalreports/iomqrdrreport/iomqrdrreport.pdf
- Jain, A. (2018). Fertility reduction and the quality of family Planning service. Studies in Family Planning.; 20(1): 1-16. http://dx.doi.org/10.2307/1966656
- Nanbakhsh, H. Salarilak, S. Islamloo, F. & Aglemand, S. (2008). Assessment of women's satisfaction with reproductive health services in Urmia University of Medical Sciences. Eastern Mediterranean Health Journal, 14 (3): 605-614.
- Nasr, E. & Hassan H. (2016). Association between quality of family planning services and client's satisfaction level in maternal and Practice. in port said. Vol. 6(1): 85-99.
- National Health Training Center. (2016). Assessment of Providers' Performance: COFP/Counseling Training, Ministry of Health and Population, Government of Nepal. . 14&51-78
- Rehman F., Janjua A. R. & Shahzad H. (2015). Client Satisfaction

- Regarding Family Planning Services in Reproductive Center at Jinnah Hospital, Lahore. P J M H S Vol. 9 (3), 1048- 1050.
- Sayed, S. Elgzar, W. Ibrahim, H. (2018). Quality of Family Planning Services in Maternal and Child Health Care Centers in Damanhour City. URL: https://doi.org/10.20849/ijsn.v3i2393
- Sullivan, T.& Bertrand, J. (2018).

 Monitoring Quality of Care in
 Family Planning by the Quick
 Investigation of Quality (QIQ):
 Country Reports: Carolina
 Population Center, University of
 North Carolina at Chapel Hill.
- Taneja, J. (2009). Evaluation of knowledge and practice amongst nursing staff toward infection control measures in a tertiary care hospital in India, The Canadian Journal of Infection Control. 24(2): 103-105
- Tumlison K, Pence WB, Curtis SL, Marshall S, & Speizer I. (2017). Quality of care & contraceptive use in urban Kenya. International

- Perspectives on sexuality & reproductive Health.; Vol. 41(2): 69-79.
- United Nations, (2017). Department of Economic and Social Affairs, Population Division. (Model based Estimates and Projections of Family Planning Indicators. New York: United Nations. http://www.un.org/en/development/desa/population/publications/pdf/family/. Pdf
- Wakjira, B. (2017). Assessment of Client Satisfaction on Family Planning Services Utilization in Wonji Hospital, Ethiopia. JBR Journal of Clinical Diagnosis and Research, 5 (1), 1 8. https://doi.org/10.4172/23760311.1000137
- Wood, S. Beeson, T. Goldberg, D. Katherine H. Shin, P. Abdul-Wakil, A. Rui, A. Sahgal, B. Shimony, M. Stevens, H. & Rosenbaum, S. (2015). Patient Experiences With Family Planning in Community Health Centers. Geiger Gibson/RCHN Community Health Foundation Research Colla.