Original Article

Intrauterine use of Devices

Knowledge, Skill and Attitude of Community Midwives Regarding Intrauterine Devices for Family Planning in Lahore

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ABSTRACT

Objective: Study was designed to assess the knowledge, skill and attitude of community midwives before and after three days training workshop on the subject insertion of intrauterine device, as a tool for family planning.

Study Design: Observational / descriptive study.

Place and Duration of Study: This study was conducted at Community Medicine, Sharif Medical & Dental College, Jati Umra, Lahore and Department of Public Health, The University of Lahore from January 2015 to June 2015

Materials and Methods: An intervention study was conducted by collecting data from designing structured questionnaire which was answered by the midwives taking part in the training to evaluate their basic knowledge, skill and attitude towards use of intrauterine devices. This study was based on three phases. 1) assessment 2) intervention 3) evaluation. Thirty community midwives in the community based maternity homes of Lahore was selected as subjects. Data through a pretested questionnaire was collected and analyzed by statistical package for social sciences (SPSS).

Results: 50-70% of community midwives had the basic knowledge of IUD, insertion skill and its benefits, before going through the training. After the training, knowledge of IUD, its insertion skill and advice to women increased up to 85-100% among the participants. Results clearly show that the knowledge of the community midwives regarding use of IUDs use as a family planning tool was minimal and increased after getting the training.

Conclusion: Study finding suggested that training is essential for the community midwives for improving their knowledge, technical skill for insertion of IUD, and aptitude for counseling to the families upon follow up visits.

Key Words: Family planning, Community midwife, IUD, Knowledge, skill and attitude

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INTRODUCTION

World population has been stabilized in developed countries. Pakistan, which is the 6th most populous country in the world, still grapples with control of fast growing population. Estimated population of Pakistan is 192 million and is expected to be 295 million in the year 2050. Family planning promotion is a priority for the government of Pakistan in order to reduce population expansion[1].

Pakistan family planning statistics show that 3.6% of fertile women of reproductive age use intra uterine devices[2]. There are three types of IUDs; 1) Copper T 380A (Nova-T) and multiload 375 copper releasing IUD, 2) Progastasert / Levo Nova, LNG-20 are progesterone releasing devices, 3) Lippes loop.

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These are effective, safe, long lasting, and rapidly reversible methods of contraception. These IUDs can stay for 5–10 years depending on the type[3]. These methods do not have any hormone-related side effects and does not adversely affect to breast feeding. These benefits have led to its immense popularity worldwide. It requires a trained health professional for its insertion into the women.

Research has demonstrated that long-acting intrauterine devices (IUDs) are cost-effective and sustainable way of fulfilling its need and prevent the unwanted pregnancies in the community. IUDs have been suggested as an effective and efficient method for family planning. However, despite being one of the first modern methods introduced in Pakistan, the IUD remains one of the least known and least used contraceptive method. Barriers to IUD access in Lahore include a lack of trained medical staff, limited supply of IUDs, limited provision of IUD insertion services and poor counseling skills due to lack of knowledge among the community midwives.

Training is essential to improve provider's knowledge, technical skill of IUDs insertion, management of side effects and attitude enhancement for counseling to the families. In 2008, a comprehensive training program was started by Green Star Net Work in Pakistan[4]. In 2001, 45 international experts developed a consensus

statement about the IUDs, which emphasized the relative underutilization of this very effective long-term contraceptive method and proposed a set of recommendations to decrease barriers for use of IUDs. Chen L et al (2008) reported, "Providing educational opportunities for providers through workshops and mentoring liberalized their attitudes for IUD use, as well as improved their technical competence and attitude". Training could stimulate providers to include IUD more frequently in their counseling scissions to women and therefore increasing demand for this method.

In 2005, U.S. Agency for International Development (USAID) reported that IUD insertion training courses had been conducted worldwide. However many of the trained nurses/ midwives had failed to develop the competence and confidence to insert the IUDs after getting the training. Various reasons were identified but the most common reason was the inadequacy of the training to infuse the required confidence among the trainees[5]. In 2006, Family Health International in Kenya made a study and found that a lack of up-to-date pre and in-service training left many providers ill-prepared to offer IUDs to their clients[6].

This study assesses the provider's knowledge and perception for the use of IUDs in Lahore. It identifies variables that significantly correlate with community midwives' IUD knowledge, perceptions, and explore differences in knowledge and perceptions of the side effects among the users.

MATERIALS AND METHODS

This was an intervention study, carried out in Lahore from January 2015 to June 2015 to meet the objective with a baseline assessment. Intervention was done by conducting training followed by the evaluation. A survey method was used for collecting the data. In first step, we completed a baseline assessment of knowledge, skill and attitude by using a pre-structured questionnaire. Second step was an intervention, which was done by providing knowledge, skill and attitude related to IUDs insertion, through a three days training workshop. Third step was an evaluation, where outcome of the training was assessed after 15 and 30 days of the training workshop by using a check list, as an evaluation tool to assess the skill related to IUD insertion. The performance check list was taken from Pathfinder International trainer's guideline to intrauterine device[8].

Each community midwife was working in maternity home with collaboration of maternal & neonate child health (MNCH) unit which is responsible for taking care of 35000--50000 population of Lahore. 15 community midwives were taken from urban area, and 15 from adjacent rural area of Lahore, Total 30 community midwives were selected for this study.

Baseline data was collected by using a pre-structured questionnaire (Global Health E learning) that had two parts. The first part consisted of demographic data (name, age, where they were trained, training period, experience, catchment area, postal address, phone no. and email of the community midwives). The second part consisted of five questions for short answers / open-ended responses related to knowledge, skill, and attitude. Performance related to IUD insertion and removal was assessed before the training and during two follow up visits after completing the training using a check-list (source: Pathfinder International, 2008).

Evaluation was done on two follow-up visits 15 days apart after training workshop. Responses of midwives were evaluated through a performance activity recorded on check-list, as following:

1. Pre-insertion task has 10 sub points on history, examination, infection prevention and hand washing.
2. IUD insertion skill has 7 sub points on examination and procedure of insertion.
3. Post-insertion task has 5 sub points on technique of de-contamination, disposal of waste products and complete client's records.
4. Post-insertion counseling has 4 sub points on teaching to check device string, experience with side effects, and assure time of removal.
5. Follow-up counseling has 2 sub points on building up relationship and diagnosing any side effect.
6. Follow-up examination has 4 sub points on pelvic examination, how and when to perform.
7. Infection prevention skill has 11 sub points on preparing de-contaminating solution, gloves, instruments, and other methods of disinfection.

The responses were completed in a logical and consistent order. Data was analyzed by using SPPS version 16.

For conducting this research, Participant's consent was taken prior conducting the study. Participants were well informed; however their identity was kept confidential. Questionnaire was translated in Urdu for the better understanding of the community midwives.

RESULTS

Participants were identified with lack of knowledge, and poor communication skills related to history, infection control and sterilization. On baseline assessment phase, mean for number of experience years was 16.5 years, training period as midwife was 1.5 years, and population in the catchment area was 30.5 thousands. Five questions were used during the baseline assessment.

In response to the first question that tested the basic knowledge of community midwives, 90% defined IUDs very well; rest of the 10% did not have the clear idea of IUDs. The second question was designed to test the skill. 50% knew the action of IUD and rest of the 50%

had no relevant knowledge. Third and fourth question again tested the knowledge and the skill of community midwives. 70% had insertion skill and knowledge of physical examination. 60% knew the advantages of the use of IUDs insertion. Fifth question was designed to check the attitude of community midwives by asking about their perception of IUDs. 90% had believed that IUDs utilization is more effective, safe, long lasting, and rapidly reversible.

The intervention was in form of a three day training workshop, which was based on theory and practical sessions. Pre- and post-test assessment comprised of 12 multiple choice questions related to IUD insertion, removal of IUD, counseling skill, and infection prevention techniques. The pre-test was taken first day of the training workshop. The training emphasized on the following aspects during theory and practical sessions:

- Importance of giving the client information, she needs to choose the method.
- Screening the clients with a preliminary pelvic examination to rule out pregnancy, pelvic inflammatory disease (PID) and endo-cervical infection.
- Counseling that changes in menses, heavier bleeding and situations that would require a follow up visit to the clinic.
- Follow aseptic technique, including hand washing, careful preparation of the cervix, sterilization of equipment to be used in IUD insertion and removal.

Second and third day consisted of practical sessions related to communication skills and practice by role-play exercise. At the end of third day a post-test was conducted using the same questionnaire as in the beginning of the workshop to evaluate the training. Results showed increase in knowledge and skills about IUD insertion.

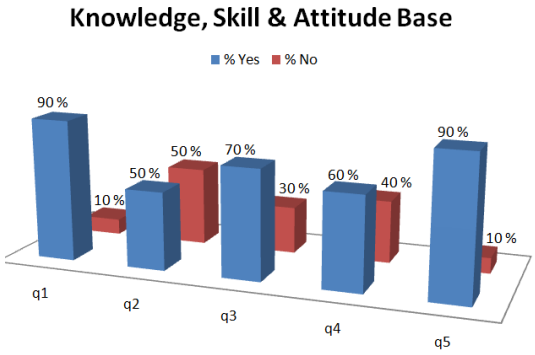

Figure No.1: Community midwives knowledge, skill and attitude of IUDs before training.

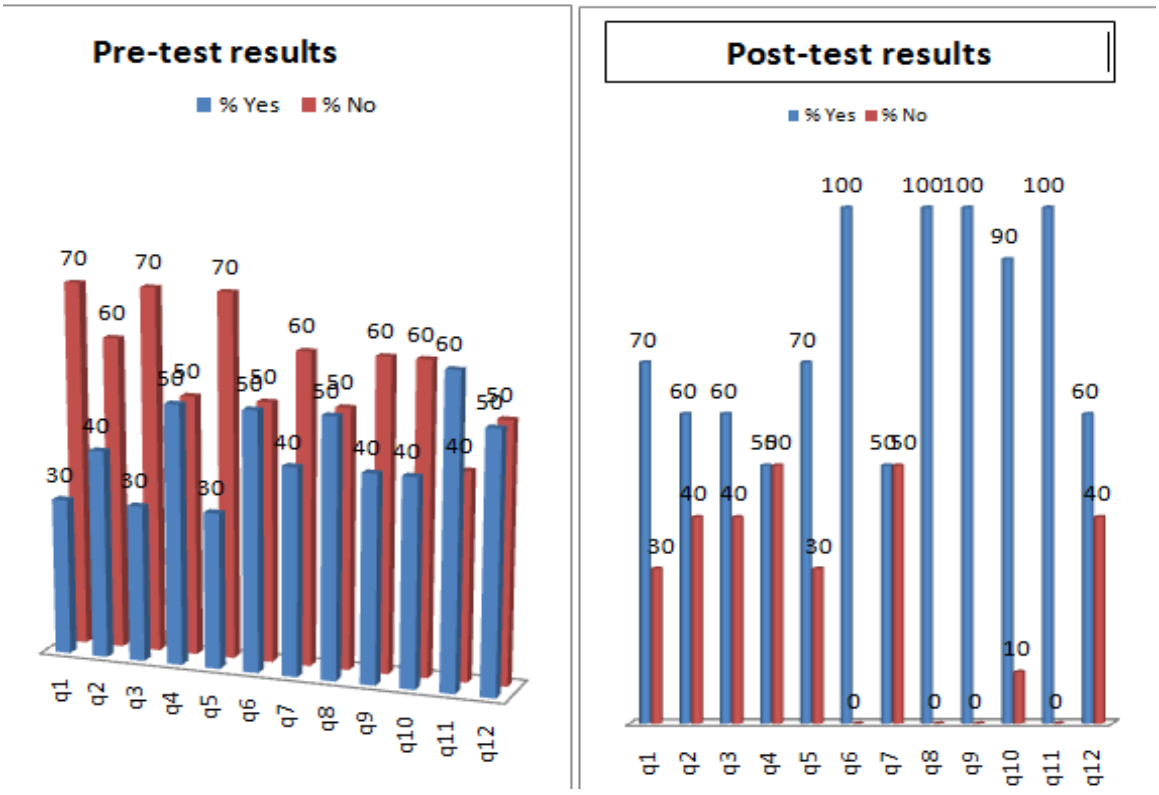

Figure No.2: Assessment of knowledge, skill and attitude of IUDs insertion, during training of community midwives in Lahore.

DISCUSSION

This study is significant in number of ways. First, a baseline of provider's knowledge, attitude, and perception regarding use of IUDs in Lahore was established. Second, a 3 days training workshop was conducted to impart knowledge, skill and develop professional attitude among the participants, for improving to deliver the better services. Results visibly show that knowledge of the community midwives regarding use of IUDs, as a family planning tool was minimal and increased after getting the training. The community midwives' attitude became increasingly attractive and professional especially while identifying and managing the side effects associated with insertion of IUDs.

Providing educational opportunities to providers through workshops and mentoring to liberalize their attitude for using IUDs has improved their technical competence[7]. Therefore, training could stimulate providers to include IUD more frequently in their counseling session with women and thereby increasing demand for the method. Participants also listed the specific problems, which they face such as lack of equipment and supplies for controlling infection and ways to overcome these barriers. They also admitted that they had gained knowledge, acquired skill and demonstrated competence in clinical practice. It will bring meaningful changes in the skill and future medical practice.

Community midwives demonstrated poor understandings of percentage of side effects associated with IUDs; for example, 85% of community midwives named the clinically rare side effect of spotting, indicating that it may be unduly stressed in previous training. Further, our finding that between 20% and 35% of community midwives consider common side effects of painful menstruation, cramping, and excessive bleeding unacceptable suggesting that providers may not have the skill and tools needed to help clients for managing these side effects. Later results were changed to almost 100% on the knowledge, skill of IUD insertion and infection prevention techniques, after the training.

Pelvic inflammatory disease among users of intrauterine device is most strongly related to the insertion process rather than the device itself[9]. Clients' believe that IUDs cause pelvic inflammatory disease is associated with lower IUD use[10]. Study shows that there is a lack of information and abundant misinformation about the IUD[11]. Most family planning clients who had never used an IUD reported a negative impression of the method, mainly because of fear resulting from rumors and myths they had heard[12]. Therefore there is dire need of training before and after the job placement.

CONCLUSION

Study was based on three phases, (assessment, intervention and evaluation). Findings of the Study suggested that training is essential to improve provider's knowledge, technical skill for IUDs insertion, and guidance for counseling during follow up visits.

For community midwives in Lahore and in other areas where insertion of IUDs by lower-level health workers is permitted, strategic efforts to train them for the insertion of IUDs and improving perceptions, addressing to barriers, and building motivation. Despite training, their knowledge, particularly with regard to medical eligibility for the use of IUD remained low. Therefore concept of training should be expanded to reduce potential barriers for using IUDs. Use of IUDs should be included in pre-service curriculum, on-job training, peer-to-peer education, client advocacy, and continually promoting that IUDs can be used safely by many women. Medical education and job tools for healthcare providers are essential for the quality care but they may not be comprehensively prepared to develop the interest in the IUD on the part of clients[8,12].

Limitations of the research were that, firstly it was a small group study and only conducted in Lahore, so results cannot be generalized. Secondly attitude of midwives could not be directly observed onsite while in medical practice.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Speidel JJ, Harper CC, Shields WC. The potential of long-acting reversible contraception to decrease unintended pregnancy. Contraception 2008;78(3)**:** 197-200.
2. Agha S, Fareed A, Keating J. Clinical training alone is not sufficient for reducing barriers to IUD provision among private providers in Pakistan. Reprod Health 2011;8**:**40.
3. Thapa S, Friedman M. Female sterilization in Nepal: a comparison of two types of service delivery. Int Fam Plan Perspect 1998;24(2)**:**78-83.
4. World Health Organization: Optimize MNH: optimizing health worker roles to improve access to key maternal and newborn health interventions through task-shifting. World Health Organization, Geneva Switzerland; 2012.
5. Eren N, Ramos R, Gray RH: Physicians vs. auxiliary nurse-midwives as providers of IUD services: a study in Turkey and the Philippines. *Stud Fam Plan* 1983;14(2)**:**43-7.
6. Espey E, Ogburn T, Espey D, Etsitty V. IUD-related knowledge, attitudes and practices among Navajo Area Indian Health Ser providers**.** Perspect Sex Reprod Health 2003, **35**(4)**:**169-73.

7. Wesson J, Gmach R, Gazi R, Ashraf A, Mendez JF, Olenja J, et al. Provider views on the acceptability of an IUD checklist screening tool. Contraception 2006;74(5)**:**382-8.
8. Hubacher D, Vilchez R, Gmach R, Jarquin C, Medrano J, Gadea A, et al. The impact of clinician education on IUD uptake, knowledge and attitudes: results of a randomized trial. Contraception 2006;73(6)**:**628-33.
9. Farley TM, Rosenberg MJ, Rowe PJ, Chen JH, Meirik O. Intrauterine devices and pelvic inflammatory disease: an international perspective. Lancet 1992;339 (8796):785-8.
10. Stanwood NL, Garrett JM, Konrad TR. Obstetrician-gynecologists and the intrauterine device: a survey of attitudes and practice. Obstet Gynecol 2002;99(2):275-80.
11. Cremer ML, Holland E, Duran S, Singh R, Terbell H, Edelman A. Exploring factors in the decision to choose sterilization vs. alternative in rural El Salvador. Medscape J Med 2008;10(8):183.
12. Katz K, Johnson L, Janowitz B, Carranza J. Reason for the low level of IUD use in El Salvador. Int Fam Plan Perspect 2002;28 (1): 26-31.