

Nurse-Based Interventional Interview Improves Contraception Knowledge among Post-Partum Women

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Abstract: Objectives: To evaluate the frequency of postnatal care (PNC) and family planning (FP) services and to determine the influence of direct interview between PN women and health provider on acceptance of various modalities of contraception. Patients & Methods: The study included all women attending the outpatient or FP clinics. Collected data included socio-demographic characteristics, obstetric history and variables that may influence contraceptive use. Frequency of antenatal care (ANC) visits was recorded as no, <4 or >4 times during pregnancy. PNC data included place of childbirth, mode of delivery and if received any PN check-up and place of check-up. Knowledge and rational about contraception was measured as the number of modern contraceptive methods known, previous use of any and the desire for more children. An interview was conducted to clarify the advantages and appropriateness of various contraceptives and the proper time for initiation of contraception. All women were given an appointment to return to the clinic to give their decision. The frequency of women attended the next appointment was recorded and considered as success of the interventional interview and the frequency of requesting each modality of contraception was reported. Results: The study included 320 women with mean age of 26.9±5.5 years; 215 women were primipara, while 105 women were multipara with mean life offspring of 2.7±1 offspring. Last pregnancy data included, 85 (26.6%) did not have ANC visits, 137 (42.8%) had <4 ANC visits and 98 women (30.6%) had >4 ANC visits. PNC data included 58 multiparous women (55.3%) had no previous PNC visits, while 47 had previous PNC visits. All primipara underwent the interview and out of 215 women 195 accepted to use contraception for a success rate of 90.7% for interviewing policy; 107 women (54.9%) preferred to use IUD using copper-IUDs, 69 women (35.4%) preferred pills and 19 women (9.7%) preferred injectable contraceptives. Conclusion: Direct interview between women and health provider was found to be successful modality for improving the yield of women health programs and for remodeling the incorrect thoughts about family planning. Nurse training programs concerning these interventional interviews is mandatory to promote the success of the program.

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1. Introduction

Uncontrolled population growth is a great problem of the current century, which has many undesirable consequences. It is considered as an obstacle to economic and social development in most developing countries. It also affects different groups of the society, including mothers and infants, since these two groups are more susceptible to different diseases and their consequent mortality (O'Connor *et al.*, 2011; Joseph & Whitehead, 2012).

High fertility is associated with preventable maternal and infant morbidity and mortality especially in low-resource settings with weak health care infrastructure. Research indicates that contraceptive use alone could reduce maternal deaths associated with unwanted pregnancies by 40% (Campbell & Graham, 2006; UNFPA, 2007).

Reproductive health is a priority program for all the developing countries, to prevent unwanted outcomes of pregnancy, perinatal care included antenatal care (ANC) and postnatal care services. Antenatal care is the most important method for detecting pregnancy problems in the early period. ANC is a critical element for reducing maternal mortality,

and for providing pregnant women with a broad range of health promotion and preventive health services. One of the most important functions of perinatal care is to offer health information and services that can significantly improve the health of women and their infants. Also, it is an opportunity to inform women about the danger signs and symptoms for which immediate assistance should be sought from a health care provider. Moreover, perinatal care highlights the importance of attitudes toward contraception, pregnancy and parenthood in shaping couples motivation to use contraception (Onakewhor & Gharoro, 2008; Skinner *et al.*, 2009).

The association between maternal health care and contraceptive use is plausible for several reasons. First, family planning (FP) services are often provided within the context of maternal and child health care; therefore women who access these services may likely be exposed to FP counseling and promotion efforts. Second, as a woman obtains maternal and child health care, she may develop trust with the health care system. This trust can help remove social barriers to accessing FP services and provide motivations for her to use multiple services from the system. In addition, a

woman's early contact with the health care system may also reduce cognitive, psychosocial, and indirect financial barriers - in the forms of time and opportunity costs - to subsequent FP service use. Finally, the use of maternal and child health care likely contributes to improved infant and child survival, motivating mothers to seek and use FP methods (Ahmed & Mosley, 2002; Hotchkiss *et al.*, 2005; Countdown Coverage Writing Group *et al.*, 2008).

The current study aimed to evaluate the frequency of postnatal care (PNC) and family planning (FP) services in the locality drained to obstetrics and gynecology department at South Valley University and to determine the influence of direct interview between postnatal women and health provider on acceptance of various modalities of contraception.

2. Patients and Methods

The current prospective study was conducted at the outpatient clinic of Departments of Obstetrics & Gynecology, South Valley University Hospital at Kena and Kena General Hospital, Ministry of Health, Egypt; since Aug 2010 till Jan 2012. After obtaining written fully informed patients' consent, all women attending the clinic or the FP clinic were enrolled in the study.

All enrolled women were evaluated concerning their basic sociodemographic characteristics and variables that may influence contraceptive use. Sociodemographic data included age, religion, and residence, degree of education and age of marriage. Obstetric data included age at time of the first pregnancy, gravidity, parity, number of living offspring and mode of health care provided during previous delivery. Data concerning ANC included if they attended the clinic for ANC or not and the number of ANC visits categorized as <4 or >4 times throughout duration of pregnancy. Data concerning postnatal care (PNC) included place of childbirth, mode of delivery and if received any PN check-up and place of check-up.

Knowledge and rational about contraception was measured as the number of modern contraceptive methods known, previous use of any, the desire for more children, the plan for newborn feeding, either breast or bottle feeding.

Then, an interview was conducted to clarify the advantages and appropriateness of various contraceptives and the proper time for initiation of contraception. All women were allowed to ask and discuss their knowledge about each modality of contraceptives and full explanations and detailed answers were provided to get their confidence and so as to accept the correct option. All women were given a time space to discuss the provided data with their husbands or nearby relatives and to return to the clinic to give their decision. The frequency of women attended the next appointment was recorded and

considered as success of the interventional interview and the frequency of requesting each modality of contraception; either the copper-IUD, pills or injectable contraceptives was also reported.

3. Results

The study included 320 women; 88 women (27.5%) attended the outpatient clinic for PNC visit, while the other 232 women (72.5%) attended the FP clinics. Women attended for PNC service had a mean postpartum duration of 22.9 ± 4.2 ; range: 15-29 days, while women attended FPC had a mean postpartum duration of 33.4 ± 2.1 ; range: 30-38 days.

Socio-demographic data are shown in table 1. Mean age of enrolled women was 26.9 ± 5.5 ; range: 16-39 years. The majority of women (58.75%) were in age range of 20-29 years, 31.25% of women were in range of 30-39 years and 10% of women were in range of 15-19 years. The majority of women (88.4%) were Muslims, while 37 women (11.6%) were Christians. Only 43 women (13.4%) were college graduate, while the remaining either illiterate or primary or secondary graduate. One hundred and forty-three women (44.7%) were poor, 150 women (46.9%) were of middle wealth strata and only 27 women (13.4%) were of the rich strata. Only 39 women (12.2%) were officers, while the remaining were housewives, farmers or manual workers.

As regards obstetric data, 215 women (67.2%) were primipara, while 105 women (32.8%) were multipara with life offspring of 2.7 ± 1 ; range: 1-4 offspring. Concerning the last pregnancy data; 85 (26.6%) did not have ANC visits during the last pregnancy, 137 women (42.8%) had <4 ANC visits and only 98 women (30.6%) had >4 ANC visits. Only 43 women (13.4%) had cesarean section, while 277 women (86.6%) had vaginal delivery. One hundred and eighty-one women (56.6%) had home delivery, while 139 women (43.4%) had their delivery at an institute; 22 women (6.9%) had delivery at private institute and 117 women (36.5%) had delivery at governmental institute. Concerning postnatal care; 58 multiparous women (55.3%) had no previous PNC, while 47 multiparous women had previous PNC, (Table 2).

All study participants had desire to get more children, irrespective of being primi or multipara. The multiparous women were on varied forms of contraception, however, the use of intrauterine devices represented the prominent form of contraception where 53 women were users of IUD, 32 women were on contraceptive pills and only 7 women were on injectable contraception. Thirteen women were using arrangement of intercourse or coitus interrupts as a method of contraception. Sixty-three multiparous women were less satisfied by their method of contraception; 21 women on pills complained of breast engorgement and mid-cyclic spotting and ten of them

complained of heavy menses, 23 women using IUD had recurrent abdominal pain, menstrual irregularities, frequent vaginal discharge and occasional failure to find the threads. Two of women using injectable contraception complained of post-contraception amenorrhea.

Only 93 women (43.3%) of the 215 primipara had knowledge about modern contraceptives, while the other 122 women (56.7%) had either no knowledge or hazy incorrect knowledge, (Fig. 1). All primipara were confronted by the advantages and possible side effects

and asked to return after discussion with their husbands; out of 215 women 195 discussed their newly administered knowledge with their husbands and accepted to use contraception for a success rate of 90.7% for interviewing policy for giving knowledge about contraception (Fig. 2). One-hundred and seven women (54.9%) preferred to use IUD using copper-IUDs, 69 women (35.4%) preferred pills and 19 women (9.7%) preferred injectable contraceptives (Fig. 3).

Table (1): Socio-demographic data of enrolled women

| Data | Findings | | | |
|---------------|---------------------------|-------|-------------|----------|
| Age (years) | Strata | 16-19 | 32 (10%) | 18.2±1 |
| | | 20-24 | 85 (26.6%) | 23±1.1 |
| | | 25-29 | 103 (32.2%) | 26.2±1.1 |
| | | 30-34 | 65 (20.3%) | 32.3±1.3 |
| | | 35-39 | 35 (10.9%) | 37±1.5 |
| | Total | 16-39 | 320 (100%) | 26.9±5.5 |
| Religion | Muslim | | 283 (88.4%) | |
| | Christian | | 37 (11.6%) | |
| Education | Illiterate | | 87 (27.2%) | |
| | Primary school graduate | | 66 (20.6%) | |
| | Secondary school graduate | | 124 (38.8%) | |
| | College graduate | | 43 (13.4%) | |
| Occupation | Farmer | | 82 (25.6%) | |
| | Worker | | 97 (30.3%) | |
| | Housewife | | 102 (31.9%) | |
| | Officer | | 39 (12.2%) | |
| Wealth strata | Very poor | | 63 (19.7%) | |
| | Poor | | 80 (25%) | |
| | Middle | | 150 (46.9%) | |
| | Rich | | 27 (8.4%) | |

Data are presented as mean±SD & numbers; percentages are in parenthesis

Table (2): Obstetric data of enrolled women

| Data | Findings | | | |
|--------------------------------------|---------------------------------|-------------|--------------|-------------|
| Parity | Primi | 215 (67.2%) | | |
| | Multi | 105 (32.8%) | | |
| Number of living offspring | Strata | 1 | 15 (14.3%) | |
| | | 2 | 20 (19%) | |
| | | 3 | 47 (44.8%) | |
| | | 4 | 23 (21.9%) | |
| | Total | | 2.7±1 | |
| Last pregnancy data | ANC visits | No | 85 (26.6%) | |
| | | <4 | 137 (42.8%) | |
| | | >4 | 98 (30.6%) | |
| | Pregnancy-related complications | Yes | 75 (23.4%) | |
| | | No | 245 (76.6%) | |
| | Place of delivery | Home | 181 (56.6%) | |
| | | Institute | Governmental | 117 (36.5%) |
| | | | Private | 22 (6.9%) |
| | Mode of delivery | Vaginal | 277 (86.6%) | |
| | | CS | 43 (13.4%) | |
| PNC among multi-parous women (n=105) | Yes | 58 (55.3%) | | |
| | No | 47 (44.7%) | | |

Data are presented as mean±SD & numbers; percentages are in parenthesis

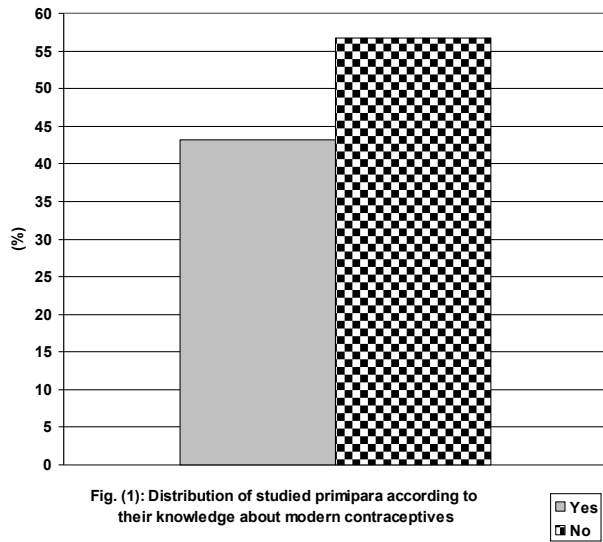


Fig. (1): Distribution of studied primipara according to their knowledge about modern contraceptives

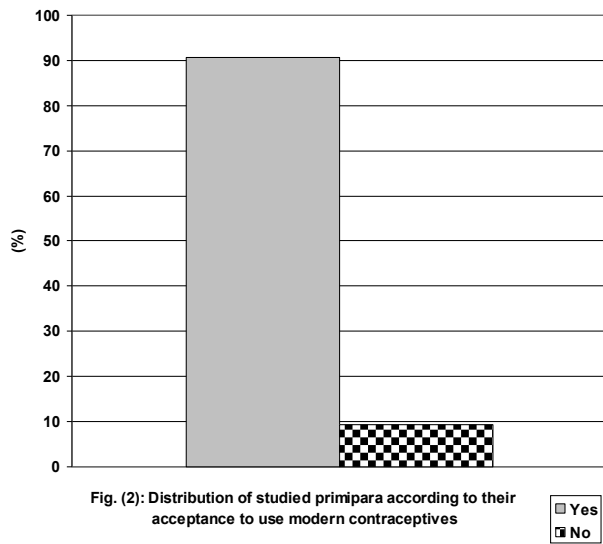


Fig. (2): Distribution of studied primipara according to their acceptance to use modern contraceptives

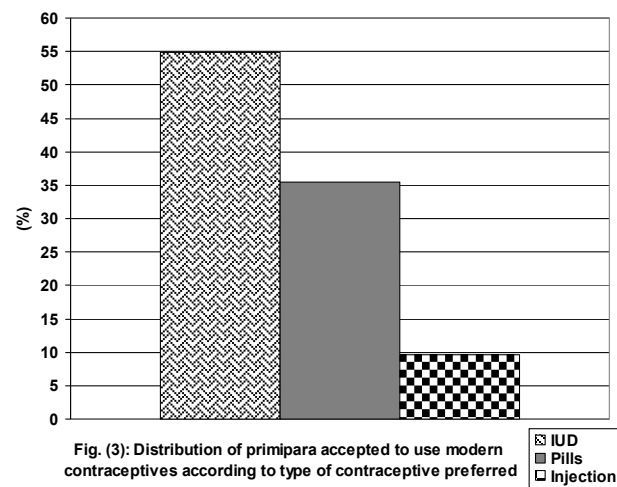


Fig. (3): Distribution of primipara accepted to use modern contraceptives according to type of contraceptive preferred

4. Discussion

The study included 320 women in the postpartum period attended the outpatient or FP clinic, only 88 women attended the outpatient clinic during

the study period seeking for postnatal follow-up advise, this low figure of searching for postnatal follow-up indicated either ignorance or negligence of parturient about the benefits of PNC. The majority of attendants was primipara and attended the clinic because of their lake of knowledge about the postpartum events and most of them had their delivery at home. Moreover, discussion of their concepts about contraception revealed shallow knowledge and/or incorrect data. These findings spotlight on the necessity of increasing the knowledge about the importance of ANC and PNC visits to flourish the idea of contraception and correct the misunderstandings about their side effects.

In support of the need of these visits, the current study reported that 85 women (26.6%) did not have ANC visits during their last pregnancy, 137 women (42.8%) had <4 ANC visits and only 98 women (30.6%) had >4 ANC visits and among multiparous women 58 women (55.3%) had no previous PNC visits. In line with these data, **Do & Hotchkiss (2013)** reported significant associations between the service intensity of ANC and PNC and post-partum modern contraceptive use and this relationship is largely due to ANC services and the lack of associations between PNC and post-partum FP use may be due to the limited measure of PNC service intensity.

After interview intervention 195 women accepted to use contraception for a success rate of 90.7% for interviewing policy for giving knowledge about contraception; 107 women (54.9%) chose copper-IUDs, 69 women (35.4%) chose pills and 19 women (9.7%) chose injectable contraceptives. Women chose IUD attributed this to the beneficial contraceptive effect of the device without disturbing the hormonal profile and to the ability to get pregnant once the device had removed and they were not annoyed by the possibility of getting pregnant while the device was in place because their desire to get more children. Women preferred pills chose it dependent on family history of previous control of conception using pills and because the interviewer corrected the data concerning hormonal effects and carcinogenesis as side effects of hormonal contraception. Women chosen injectable forms all attributed their choice to the possibility of forgetting the pill and this will do some problems and to their desire to postpone the next pregnancy for a long duration and the interviewer assured the accuracy of this form to accomplish that target without fearing of getting infertile.

These data go in hand with **Olamijulo & Olorunfemi (2012)** who in their series found 6.6% had poor knowledge about contraception while 93.3% had fair to excellent knowledge, the prevalence of contraceptive use before current pregnancy was 57.6% and the male condom was the method used by 64.4% of these women, 45% of women planned to use contraceptives after delivery and the male condom

(55.9%) was the most preferred method of post-partum contraception. **Duncan et al. (2013)** studied 107 pregnant for evaluation of attendance for contraception advice and preference of contraception method and found the attendance for contraceptive advice within 4 weeks of delivery occurred in 77% of pregnancies; Depo-Provera® was prescribed in 23%, an intrauterine contraceptive 27% and sterilization as part of a Caesarean delivery in 12% and in 15% of cases women opted to use condoms alone and 23% were missed.

In support of the applied policy of interventional interview for provision of knowledge about family planning and contraception and for clarification of the concept of each method so as to choose the most satisfactory method, **Fehring et al. (2011)** evaluated the efficacy, knowledge of fertility and acceptability of a nurse-managed web-based natural family planning (NFP) education and service program and found that the nurse-managed online NFP system seems to provide adequate knowledge of fertility and help participants meet pregnancy intentions. **Fathizadeh et al. (2011)** reported that the users of contraceptive methods would have some experiences, which induce their dissatisfaction with the methods leading to either a decrease in continuation or discontinuation of the use of the method, but providing some policies to increase the satisfaction with contraceptive methods can cause more effective use of the methods and continuation of their use.

Also, **Arrowsmith et al. (2012 a&b)** retrospectively reviewed 9 studies and reported that community-based interventions and antenatal contraceptive counseling improved uptake of copper-IUD in studies mainly conducted in developing countries because copper IUD are relatively safer, more effective and inexpensive compared with hormonal methods and are the most widely used to allow reversible contraception.

The obtained results point to a fact that an educational program for nurses working at family planning clinics must be instituted to train them about ideal modalities for communication with clinic attendants so as to promote the family planning project. In line with this recommendation, **Hayter (2009)** reported that the linked 'core categories' emerged from the data analysis included reproductive education concerning that women are educated about their body and how it responds to contraception and this core category is closely linked to 'surveillance' where women are taught to monitor their reproductive health and to 'contraceptive regimen' where women are instructed in techniques to successfully use a contraceptive method and recommended that nursing practice in this important area of women's health care is complex and requires skilled practitioners. Also, **Ko et al. (2010)** examined the status of FP practice and identify intrapersonal, interpersonal and community

factors associated with FP practice among married women in a rural area and recommended that nurses and midwives need to be trained to provide knowledge and skills for long-term or permanent FP methods for service quality.

It could be concluded that up till now, there are misunderstandings and incorrect beliefs about family planning and shortage of understanding the benefits of antenatal and postnatal care visits. Direct interview between women and health provider was found to be successful modality for improving the yield of women health programs and for remodeling of the incorrect thoughts about family planning. Nurse training programs concerning these interventional interviews is mandatory to promote the success of the program.

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