

POSTABORTION CARE (PAC) COUNSELING FOR IMPROVING FAMILY PLANNING UTILIZATION AT OMDURMAN MATERNITY HOSPITAL (OMH), SUDAN 2018 - 2019

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ABSTRACT

Objectives: To assess the effect of post miscarriage family planning counseling for improving postabortion family planning (PAFP) utilization at OMH 2018- 2019. **Methods:** An interventional study done at OMH, in Khartoum, Sudan, 2018 -2019. Renovation of the family planning unit and the PAC ward had been done and required supplements were availed. Situation analysis, and training of health care providers was done before implementing the study. All patients presented for PAC, were included in the study after an informed consent during the period from January to December 2018. Data was collected by trained data collectors, reviewed by the authors and analyzed using SPSS version 22.0. **Results:** A total of 3280 women were admitted for PAC services, representing 9.1% of the total hospital's admission, 2887(88%) were included in the study, 393 (12%) were excluded for gynecological or medical problems. All postabortion (PA) women were counseled for family planning, of them; 2485 (86.1%) were discharged with a contraception leading to a significant rise of utilization after intervention from 42% to 86.1%. The combined oral contraceptive pills (COC) were commonly used 76%, followed by; implants 10.0%, intra-uterine devices (IUDs) 9.1%, progesterone only pills (POP) 3.6% and 1.3% depot-medroxyprogesterone acetate (DMPA) injections. **Conclusion:** Training of health care providers (HCP), good counseling, and availing of affordable wide range of contraceptives have clearly improved uptake of PAFP and a rise in choice of long acting reversible contraceptives (LARCs). Effective implementation of PAFP will ensure secondary prevention of unintended pregnancy, unsafe abortions and maternal mortality.

KEYWORDS: Postabortion care (PAC), postabortion Family Planning (PAFP), Omdurman Maternity Hospital, Sudan (OMH).

INTRODUCTION

Abortion or miscarriage is a common complication of pregnancy, including; induced or spontaneous loss of a pregnancy before the fetus has reached viability at 24 weeks.^[1] Its incidence varies from 10% –25% where half of them take place under unsafe conditions, and may result in 13% of pregnancy related maternal deaths all over the world.^[2,3] PAC is a comprehensive approach for reducing complications of spontaneous incomplete or induced unsafe abortion for improving women's sexual and reproductive health and reducing maternal mortality

and morbidity from abortion. It consists of five essential interrelated elements: treatment of abortion and its complications, counseling, family planning services, other reproductive and related health services, and community and service provider partnerships.^[4]

In Sudan, there is no available data that reflects the needed information on PAC, and the exact prevalence of abortion, safe or unsafe is unknown; however, it was reported as 11.0% in safe motherhood survey (SMS) 1999, and 9.9% in Sudan house hold survey (SHHS) 2006.^[5,6] Due to restrictive laws of abortion (135-138) in

Sudan, induction of abortion is allowed; if pregnancy is missed abortion, endanger woman's life, or a result of an officially documented rape, less than ninety days and termination is requested by the woman.^[7]

After an abortion or miscarriage, fertility can return as early as two weeks, where pregnancy can occur. To prevent unintended pregnancy, a family planning method has to be started immediately or at least no later than one week after a miscarriage, even after a planned pregnancy. Many women may leave with an unmet need for family planning and at risk of another unintended pregnancy, and subsequent repeated miscarriage.^[8] Provision of contraceptives at the same time and location where abortion service is provided can reduce missed opportunities and increase acceptance of PAFP. A recent report by WHO technical consultation on birth spacing recommended that after a miscarriage or induced abortion a woman should wait for at least six months before becoming pregnant to reduce the risks of maternal mortality, unsafe abortion, maternal anaemia, and premature rupture of membranes, low birth and preterm delivery in the next pregnancy.^[4]

Many effective and safe methods of contraception have been developed; yet, even with the increasing use of modern methods, thousands of women face unintended pregnancy every year. The particular medical condition of a woman, her knowledge and preferences, ability to use a method, and access to follow-up determine her method of choice. In many settings, women's choice of contraceptives after abortion is limited by provider's knowledge on contraceptions and availability of full range of contraceptive at the site and time of abortion.^[9] Many women rarely leave the health facility with the knowledge and means to avoid unprotected intercourse and unintended pregnancy. This is similar in Sudan, where patients with abortion admitted to public hospitals receive the emergency management, discharged without adequate family planning and remain with unmet need. To reduce this risk, it is vital to provide a comprehensive package of PAC services including both medical and preventive healthcare.

MATERIALS AND METHODS

This is an interventional hospital based study done at OMH during 2018- 2019. OMH is the main specialized maternity hospital in Khartoum, Sudan; with an average of 90-110 deliveries per day, and had 36212 deliveries in 2017. Renovation of PAC center was done for improving privacy, confidentiality, infection prevention, service delivery and motivation of care providers to provide high quality PAFP. The hospital has an educational training center for care providers in the hospital and other hospitals in Sudan. All women presented with abortion at OMH, and all health care providers during the study period were included in the study. Study variables were socio-demographic parameters; age, parity and education, numbers of miscarriage, contraceptive used, information given and women satisfaction towards PAFP

services. The study was carried out into **three** phases: situation analysis, intervention and post intervention analysis. Data was collected using a structured questionnaire after an informed consent by trained data collectors. Health care providers were interviewed before and after intervention by the researchers.

Pre-intervention phase (Situation analysis); is a preparatory stage, for assessment of the current PAC, availability of services, staff capacity, hospital records and hospital readiness to implement the interventional study. During the period from March to December 2017, health care providers were interviewed for their practice and knowledge on PAFP, methods and counseling skills before intervention. All women were interviewed after medical or surgical treatment, for their experience in using contraception after an informed consent. Women were interviewed, during recovery period after evacuation and before discharge in a separate private room. Ethical approval was obtained from OMH ethical review committee and the general directorate. Data was reviewed by the researchers and analyzed using SPSS version 22. Situation analysis identified that; most of care providers never received any special training on PAFP and few of them have capabilities of providing LARCs. Also reported absence of contraceptive mix and supplies, FP being provided in a separate place from PAC and clients were asked or referred to go elsewhere to receive FP. All findings of the assessment were addressed and targeted in a comprehensive intervention to integrate FP in PAC services at OMH.

After identification of these delivery gaps, we designed and implement practical **intervention** to improve PAFP counseling, increase PAFP uptake particularly LARCs, and to ensure high-quality family planning counseling and provision. Intervention was designed to address: training of service providers on PAFP, counseling on contraceptive methods, provision of family planning services at the same location as emergency treatment, adequate supply and mix of contraceptives methods, monitoring and supervision. Care providers training included updated practical guidelines and provision of temporary and long-acting contraceptives and overall family planning services. A wide range of contraceptive methods were offered freely to patients before discharge, with a stock supply of oral pills for at least 6 months. FP methods consistently and readily were provided on the site position of PA wards for seven days a week, 24 hours a day making effective commodity supply. Information on the use, the benefits, and the common side effects with different methods available for use and a plan for follow-up visits. Women with contraindications, misinformation or refuse to use a method of contraception were provided with special re-counselling, and sometimes engaging husbands in FP decisions.

Care providers involved in the delivery of the intervention participated in specific **training** being an

integral component of the intervention and related to family planning counseling and services. The training program implemented during the study consisted of two workshops, each taking place for two days at a separate time in the academic center at OMH during the first week of January 2018. Upgraded training curriculum covered a scientific and technical knowledge regarding theoretical component and clinical training on high quality counseling skills and PAFP services as recommended by WHO. These workshops were attended by 42 participants from HCP responsible for PAC, including registrars, house officers and 11 nurses. The cognitive knowledge covered the definition and components of PAC, the importance of good PAFP counseling and availability of a wide range of commodities, and a comprehensive information about each methods of FP. A group discussion and role play station was set up about counseling specifically designed to show the appropriate interaction between the provider and the client.

After **intervention** data was obtained by completing a structured questionnaire during a twelve months period from January to December 2018. Data quality, completeness and accuracy was confirmed by the investigators through every day checkup of reports. Every day supervision was carried by a researcher to emergency room and PA wards to ensure availability of service, the supply of FP commodities, and the completeness of registration. Data was edited without names and identification numbers were kept away after coding and analyzed by an expert using a computer SPSS program, version 22.

RESULTS

During the situation analysis; 760 women were admitted for PAC, of them 319 (42.0%) were discharged with a contraceptive, 295 (92.8%) with COC, 4.7% with POP, 1.6% implants and 1.3% with IUCD. Post intervention; interviewed a total of 3280 women admitted for PAC, representing 9.1% of the total hospital's admission. Of them 2887(88%) were included in the study, 393 (12%) were excluded for gynecological or medical problems. Among them; 2475 (85.7%) were middle age (20- 39 years), and 324 (11.2%) were teenagers. Most of them were educated, 1870 (64.8%) completed secondary school, 986 (34.2%) were university graduates and only 32 women (1.1%) were illiterate, 2678 (92.8%) were living in urban and 2517 (87.2%) were multiparous (table 1). All were counseled for family planning, and 2485 (86.1%) were discharged with a contraception leading to a significant rise after intervention from 42% to 86.1%. Only 402 (13.9%) were discharged without a contraceptive, 254 (63.2%) of them would like to get pregnant, 113(28.1%) afraid that FP may affect their fertility, 23 (5.7%) their husbands were absent and 12 (3.0%) FP was refused by their family (table 2). The COC were commonly used 76%, followed by; implants 10.0%, IUD 9.1%, POP 3.6% and 1.3% DMPA injections. In this study; 2809 (97.3%) were satisfied by

PAFP services, and only 78 (2.7%) were dissatisfied. Women at less than 20 years of age, more than 40 years, and the illiterate were the least to choose a contraceptive (2.7%, 3.5% and 1.7% respectively) (tables 3 and 4), while multiparous women were the highest to choose a contraceptive, 97.5% (table 5).

DISCUSSION

PAC was introduced in public health as an important strategy by the international conference on population and development (ICPD) since 1994 to reduce maternal mortality and morbidity in countries where induced abortion is restricted. In this study PAC rate is 9.1% of the total hospital admissions, which is consistent with that reported in SMS 1999 as 11%, and 9.9% in SHHS 2006.^[5,6] It is also similar to what have been found in a study in eastern Sudan, 2009-2010, 11.9%.^[6] and in other seven states in Sudan 2010-2014, 12.4%.^[10] It is also consistent with that found in Nepal 2004, 10%.^[11] However, it is relatively low compared to a study done in southeast Nigeria and Kenyatta national hospital in Nairobi, where the rate was up to 41% and 60% respectively.^[12]

In this study PAFP increased uptake from 42% to 86.1% during study period, this rate is high compared to previous studies in eastern Sudan 2009- 2010, where only 18 % of admitted women received PAFP. However, in Sudan during implementation of PAC, 2010 – 2014; it was found to be increasing gradually from 37.5% to 51.6% and 68% in a model center at OMH.^[10] This is consistent with that found in Turkey, where there was a rise from 65% in 1991 to 98% in 1992 with implementation of PAFP.^[13] It is also similar to findings from Ethiopia, where provision of PAFP service immediately after all types of abortion increased FP uptake from 0-10% before intervention to 50-80% within 1-2 years after intervention.^[14] Although the contraceptive prevalence rate (CPR) in Sudan is low, 18%; PAFP utilization in this study is high 86.1%. This difference is due to; training of health care providers, implementing appropriate PAFP services; FP counselling and women knowledge on contraception, provision of modern mix methods prior to discharge from facility, with all option of contraceptives available at the point of service delivery. PAFP improved women knowledge on benefits of contraceptives and increased their uptake immediately after abortion.

Rate of contraceptive uptake in this study is more than that found in Pakistan, where 71.9% used contraceptive after abortion.^[15] It is also higher than uptake reported in Nepal, where 56% of women presented to PAC received family planning counselling and contraceptives.^[11] In a five-year review in a university teaching hospital in south east Nigeria 42% of the clients were counselled for family planning and only 16% had contraceptive uptake upon discharge from hospital.^[12] However, it is less than what have been found in a much similar study, carried out in Zimbabwe evaluating the provision of PAFP

services, where the acceptance and obtainment of contraceptive methods following counselling was close to 100%.^[16]

In spite of the availability and provision of all contraceptive methods, combined oral contraceptive 76%, were the commonly chosen method. This may be due to women’s knowledge, easy use, free access, immediate handling, full time availability, and less known side effects. LARCs are the second chosen methods, implanon 10.0%, IUDs 9.1% followed by POP and DMPA. In this study there is significant increased uptake of LARCs, from 1.6% implants and 1.3% IUCDs to 10.0% for implants and 9.1% for IUCDs after

intervention. This increment was mainly due to; availability of LARCs, improved skills through training, and presence of full contraceptive package. This is similar to what have been found in Turkey during implementation of PAFP.^[13] It is also consistent with what have been found on a randomized controlled trial (RCT) in China where there was an increase uptake of implants and IUCD with implementation of PAFP.^[17] Women’s education had an impact on contraceptive uptake, where illiterate were the least to choose a contraception, while the educated were the most to use LARCs. It is also evident that parity affects contraceptive utilization, as women with fewer children have less contraceptive uptake.

Table 1: Characteristics distribution of women admitted to OMH for PAC during 2018.

Variable	N = 2887	%
Age:		
Less than 20 years	0324	11.20%
20 -29 yeas	1441	49.90%
30- 39 years	1034	35.90%
40 years and more	0088	03.00%
Total	2887	100.00%
Education:		
Illiterate	0031	01.10%
Primary school	0564	19.50%
Secondary school	1306	45.20%
University	0986	34.20%
Total	2887	100.00%
Parity:		
Primipra	0370	12.80%
Multiparous (2 -4)	1599	55.40%
Grnamultipara (5 or more)	0918	31.80%
Total	2887	100.00%
Residence:		
Urban	2678	92.80%
Rural	0209	07.20%
Total	2887	100.00%

Table 2: Reasons for discharge women for PAC without a contraceptive from OMH 2018 even after counseling for PAFP.

Reason for not choosing a contraceptive	N = 402	%
Would like to get pregnant	254	63.20%
Afraid to affect her fertility	113	28.10%
Refused by the family (husband, mother and others)	012	03.00%
Husband is absent	023	05.70%
Total	402	100.00%

Table 3: Association of women’s age and their choice of postabortion contraceptives at OMH 2018- 2019.

Age in years	Method of FP N= 2485					Total
	COC	DMPA	Implanon	IUD	POP	
Less than 20	0053	0000	0000	0000	0014	0067 02.7%
20- 29	1044	0013	0135	0117	0039	1348 54.2%
30- 39	0738	0017	0104	0094	0030	0983 39.6%
40 years or more	0054	0002	0010	0015	0006	0087 03.5%
Total	1889	0032	0249	0226	0089	2485
	76.0%	01.3%	10.0%	09.1%	03.6%	100.0%

Chi square = 72.03
 PV = 0.001

Table 4: Association of women's education and their choice of postabortion contraceptives at OMH 2018- 2019.

Education level	Method of FP N = 2485					Total
	COC	DMPA	Implanon	IUD	POP	
Illiterate	0017	0000	0000	0000	0025	0042 01.7%
Primary school	0442	0007	0062	0053	0014	0578 23.2%
Second. school	1060	0011	0105	0091	0029	1296 52.2%
University	0370	0014	0082	0082	0021	0569 22.9%
Total	1889	0032	0249	0226	0089	2485
	76.0%	01.3%	10.0%	09.1%	03.6%	100.0%

Chi square = 85.47

PV = 0.001

Table 5: Association of women's Parity and Their choice of postabortion contraceptives at OMH 2018- 2019.

Age in years	Method of FP N = 2485					Total
	COC	DMPA	Implanon	IUD	POP	
Primipara	0027	0000	0000	0000	0034	0061 02.5%
Multipara (2- 4)	1253	0019	0132	0136	0029	1569 63.1%
Grand multipara	0609	0013	0117	0090	0026	0855 34.4%
Total	1889	0032	0249	0226	0089	2485
	76.0%	01.3%	10.0%	09.1%	03.6%	100.0%

Chi square = 82.27

PV = 0.001

CONCLUSION

Implementing of a high quality services, by training of health care providers (HCP), good counseling, and availing of affordable wide range of contraceptives have clearly improved uptake of PAFP and a rise in choice of long acting reversible contraceptives (LARCs). This necessitates the integration of PAFP services at all level, as an important element of care, to reduce unintended pregnancy and lower maternal mortality and morbidity. A more evidenced based intervention has to be implemented to improve the quality of PAFP in a feasible and applicable strategy to address the unmet need for FP.

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CONFLICT OF INTEREST

Authors declare that they have no conflict of interest for conducting this research.

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