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Original Research Article

Determinants of contraceptive methods use after voluntary induced abortion at the Yaounde Central Hospital, Cameroon

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ABSTRACT

Background: Abortion is the termination of pregnancy with expulsion of the product of conception before the age of fetal viability- 28 weeks. In Africa, 96% of abortions are unsafe and there is an estimated 1 death for 150 abortions. Few data are available in Cameroon on the determinants of contraception after a voluntary termination of pregnancy. The objective of this study to investigate the determinants of the use of contraceptive methods after a voluntary termination of pregnancy.

Methods: The study was descriptive cross-sectional lasting 09 months in the gynecology and obstetrics unit of the Yaounde Central Hospital. We included women admitted to this unit who have already had at least one abortion. All women who did not give their consent were excluded. The data were entered and analyzed using the Epi-info software version 7.2.2.6. The tools used to express our results were the Student's and Whitney's test, the Wald test and the Odd ratios (OR) with their 95% confidence interval. The significance level was 5%.

Results: Out of 139 participants, 86 (61.87%) had already used a modern contraceptive method after voluntary termination of pregnancy. The mean age was 27.13±6.16 years with extremes of 16 and 42 years. Being single and having unwanted pregnancies independently increased contraceptive method use after abortions.

Conclusions: An intensification of campaigns for behaviour change and men's involvement would further improve the use of contraceptive methods after abortion.

Keywords: Determinants induced, Contraceptive methods, Contraceptive, Voluntary induced abortion, Yaounde

INTRODUCTION

Abortion is defined as the accidental, voluntary, medical or therapeutic termination of pregnancy before the legal term of viability, the date from which the viable child born alive is expected to be able to develop and live to an advanced age. However, this term of fetal viability varies from country to country depending on the resources and the technical platform. According to the WHO and in developed countries It is 22 weeks of pregnancy.¹⁻³ Traditionally, it is 180 days or 28 weeks in developing countries.^{2,4} Contraception is the set of methods used to

prevent the occurrence of an unwanted pregnancy.⁵ It is a necessity to plan pregnancy and to try to reduce the number of voluntary terminations of pregnancies (abortions). The International Conference on population and development, held in Cairo in 1994, recognized the need to put in place quality reproductive health services, regardless of the country's official position on the legality of an abortion.⁶

Recent estimates give a total figure of around 30 million induced abortions annually worldwide. About 19-20 million of these abortions are done in unsafe conditions

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resulting in a significant number of maternal deaths and serious sequelae such as infertility. ⁷Many women who have had an abortion are again at risk of being involved in a cycle of unwanted pregnancies and induced abortions (elective abortion). It was in order to break this vicious cycle of unsafe abortions that post-abortion family planning was introduced into post-abortion care.8 Family planning (FP) is a set of technical and educational measures that allow couples to decide the number of children and the time of their birth, while allowing the pursuit of harmonious sexual activity. Different means are used in family planning. These are more or less old and more or less effective contraceptive methods.9 Postabortion contraception is part of the post-abortion care package and helps improve women's sexual and reproductive life and health. 10,11

In Africa, 96% of abortions are unsafe and an estimated 3,740,000 clandestine induced abortions performed each year, with an estimated mortality ratio of 1 death per 150 abortions. Most women who have a clandestine induced abortion have an obvious motivation- that of having contracted an unwanted pregnancy. This is why the access of these women to a wide choice of modern contraceptive methods must be facilitated to enable them to control their fertility in complete safety. Contraception is a set of measures that make sexual intercourse non-fertile, temporarily and reversibly. Research on factors associated with the use of contraceptive methods would encourage the use of FP, thereby reducing the incidence of unsafe abortions and their complications.

The general objective of this study was to investigate the determinants of the use of contraceptive methods after a voluntary termination of pregnancy, in particular to determine the proportion of women using contraceptives after a voluntary termination of pregnancy, to describe the socio-demographic, gynecological and obstetrical characteristics of women using contraceptives after an abortion, and to identify factors associated with the use of contraceptive methods after an abortion.

METHODS

We conducted a descriptive cross-sectional study with prospective and retrospective data collection, over a period of 09 months, i.e.; from 11 January 2018 to 07 January 2019 in the gynecology and obstetrics unit of the Central Hospital of Yaounde (HCY). This unit was a reference center that receives most of the gynecological and obstetrical emergencies in the city of Yaounde, and even in the Center region. About 350 deliveries are performed there per month.

Sampling

Our sampling was consecutive and exhaustive. The study population consisted of all women admitted to the HCY maternity hospital for abortion. All women who have had

an abortion at least once were included. All women who did not consent to the study were excluded.

Procedure

From the consultation register, all women who had already had an abortion were identified. Those who had already had an abortion and hospitalized for complications or for any reason whatsoever were sought and identified in the postpartum department. The patients were approached to explain the purpose and the possible advantages of our study. Recruitment was done consecutively. After verbal or written consent from any participants, the interview began, and the files were consulted to complete the information. All the information was reported on pre-established and tested questionnaires.

The independent variables were whether or not a contraceptive method was used after abortion. The dependent variables were socio-demographic (age, marital status, level of education, profession, religion), gyneco-obstetric (pregnancy (number of pregnancies), parity (number of births after 28 weeks)), the abortion method used, age of the last terminated pregnancy, the number of abortions, the reasons for the abortion, the qualification of the practitioner, the medical history, the type of contraception, the reason for not using contraceptive methods, the reasons for choosing the method, the contraceptive complications and contraceptive adherence.

Statistical analysis

The data collected and reported on the questionnaires were recorded on the computer and analyzed using EPI INFO 7.2.2.6 software. Microsoft word and excel 2013 software were used for the production of tables and graphs. We used an α error threshold of 5%. The mean values were expressed with their 95% confidence interval. Quantitative data was defined by their mean and standard deviation when the distribution was considered normal. Otherwise, they were described by their median. Qualitative variables were described in terms of proportion. The tools used to find the determinants were the odd ratio (OR) calculated with a 95% confidence interval. Single and multiple logistic regressions were used to relate dependent variables to independent variables.

RESULTS

Generalities

Of 200 women approached in the postpartum ward during the study period, 145 gave their consent. Among the latter, 6 having incorrectly completed the technical sheet were excluded from the analysis. We thus retained and analyzed the files of 139 participants. The mean age of the participants was 27.13±6.16 years with the extremes of 16 and 42 years. Of the 139 participants, 86 (61.87%) used contraception after an abortion and 53 (38.13%) did not use it, i.e.; a frequency of use of a contraceptive method after abortion of 61.87%. The participants were then

divided into two groups according to whether they had used (N=86) or not (N=53) a contraceptive method after the abortion. The rest of the analyzes are carried out by comparing the two groups.

Socio-demographic determinants

Apart from the 'single' marital status which appeared to increase the use of contraceptive methods after abortion, all the other socio-demographic variables had a homogeneous distribution (Table 1).

Gynecological and obstetrical determinants

Only the variable 'reason for abortion' was distributed heterogeneously. Women with unwanted pregnancies used more contraceptive methods after abortion. All other variables were evenly distributed (Table 2).

Independent determinants of the use of contraceptive methods after abortion

To find the independent determinants of the use of contraceptive methods after abortion, a logistic regression was done in Table 3 using the variables whose distribution was heterogeneous during the simple regressions.

Being single and having unwanted pregnancies independently increased contraceptive use after abortions (Table 3).

Table 1: Socio-demographic determinants of the use of contraception after abortion.

	Use of c	ontracepti	ive meth						
Variables	Total		Yes		No		OR (95% CI)	P value	
	N=139	N=139 %		N=86 %		%			
Age group (years)								0.87	
16-25	58	41.73	34	39.53	24	45.28	0.7(0.19-2.62)	0.60	
26-35	69	49.64	44	51.16	25	47.17	0.8(0.2-3.2)	0.84	
36-42	12	8.63	8	9.30	4	7.55			
Marital status									
Married	38	26.62	18	47.37	20	52.63	1		
Single	102	73.38	68	67.33	33	32.67	2.28 (1.07-4.89)	0.03	
Level of education								0.17	
Primary	32	23.02	16	30 .19	16	18.60	0.38(0.15-0.98)	0.04	
Secondary	57	41.01	34	39.53	23	43.40	0.57(0.25-1.29)	0.18	
Higher education	50	35.97	36	41.86	14	26.42			
Profession								0.62	
Student	46	33.09	33	38.37	13	24.53	1.81 (0.72-4.56)	0.3	
Housewife	32	23.02	19	22.09	13	24.53	1.04 (0.39-2.7)	0.2	
Employed	25	17.99	13	15.12	12	22.64	0.77(0.27-2.16)	0.9	
Trader	36	25.90	21	24.42	15	28.30		0.6	
Religion								0.1	
Christian	120	86.33	75	87.21	45	84.91	0.41 (0.08-2.04)	0.28	
Muslim	9	6.47	3	3.49	6	11.32	0.12 (0.02-1)	0.05	
Others	10	7.19	8	9.30	2	3.77			

Table 2: Gynecological and obstetrical determinants of the use of contraception after abortion.

	Use of c	ontracept	tive meth	OR (95% CI)	P value			
Variables	Total		Yes			No		
	N=139	%	N=86	N=139	%	N=86		
Number of pregnancies								0.45
1	31	22.30	22	25.58	9	16.98	0.85 (0.39-1.84)	0.68
2	49	35.25	28	32.56	21	39.62	1.56 (0.61-3.98)	0.35
>2	59	42.45	36	41.86	23	43.40		
Number of births	-	•	•		•		•	0.27
0	45	32.37	31	36.05	14	26.42	0.88 (0.15-5.13)	0.89
1	30	21.58	16	18.60	14	26.42	0.45 (0.76-2.73)	0.39
2-3	40	28.78	21	24.42	19	35.85	0.44 (0.07-2.55)	0.36
4-5	17	12.23	13	15.12	4	7.55	1.30 (0.17-9.47)	0.79
6-10	7	5.04	5	5.81	2	3.77		

Continued.

	Use of c	ontracep	tive meth						
Variables	Total		Yes	Yes			OR (95% CI)	P value	
	N=139	%	N=86	N=139	%	N=86			
Number of induced abortions							•	0.47	
1	84	60.43	50	58.14	34	64.15	1.17 (0.42-3.28)	0.75	
2	34	26.62	26	30.23	11	20.75	1.89 (0.58-6.07)	0.28	
>2	18	12.95	10	11.63	8	15.09			
Term at induced abortion (weeks)									
<14	118	84.89	74	86.05	44	83.02	0.79 (0.30-2.03)	0.81	
≥14	21	15.11	12	13.95	9	16.98			
Qualification of pra	ctitionner							0.24	
Paramedic	58	41.73	36	41.86	22	41.51	1.63 (0.67-3.98)	0.27	
Clinician	51	36.69	35	40.70	16	30.19	2.18 (0.86-5.53)	0.098	
Others	30	21.58	15	17.44	15	28.30			
Method used								0.19	
Manual aspiration	48	34.53	33	38.37	15	28.30	2.64 (0.93-7.45)	0.06	
Curettage	35	25.18	20	23.25	15	28.30	1.6 (0.54-4.68)	0.39	
Drug	24	17.27	17	19.77	7	13.21	2.91 (0.86-9.83)	0.085	
Archaic method	32	23.02	16	18.61	16	30.19			
Reason for induced abortion							0.009		
Unwanted pregnancy	76	54.68	55	63.95	21	39.62	3.92 (1.51-10.10)	0.005	
Family constraint	38	27.34	21	24.42	17	32.08	1.85 (0.66-5.16)	0.23	
Social constraint	25	17.99	10	11.63	15		28.30		

Table 3: Independent determinants of the use of contraceptive methods after abortion.

Variables		contrace d abortic	ptive aft on	er	OD (050/ CT)	Davolaco	- OD (050/ CD)	Develop
	Yes		No		OR (95%CI)	P value	aOR (95% CI)	P value
	N=86	%	N=53	%				
Marital status								
Married	18	47.37	20	52.63	1			
Single	68	67.33	33	32.67	2.28 (1.07-4.89)	0.03	2.53 (1.52-4.22)	0.02
Reason for induced al								
Unwanted pregnancy	55	72.37	21	27.63	3.92 (1.52-10.01)	0.003	2.82 (1.51-5.09)	0.03
Family constraints	21	55.26	17	44.74	1.85 (0.66-5.16)	0.23		
Social constraints	10	40	15	60				

DISCUSSION

General

The mean age of 27.13±6.16 years found in our study is close to those of Rose in New Zealand and of Prata et al in Ethiopia who respectively reported mean ages of 24.7 years and 25 years old. 13,14

In our study, 61.87% of patients had used a post-abortion contraceptive method. These results are similar to those of Moreau in France, Ceylan et al in Turkey, Prata et al in Ethiopia, Kavanaugh et al in the United States who found respectively 77%, 80.1%, 86%, 67% post-abortion contraceptive use rate. ¹⁴ Abortion induces some changes in the prevention of unwanted pregnancies, although two-thirds of women have not received any post-abortion counseling. ¹⁵

In Mali, 45% of women use a method after an abortion, twice as many as before their abortion (23% of users). ¹⁶ In Togo, the proportion of contraceptive users increases from 20% before the abortion to 51% after. ¹⁷ In Cote Ivoire, the contraceptive prevalence before and after abortion increases overall, going from 25 to 31% for natural methods and from 14 to 34% for modern methods.

Determinants of the use of contraceptive methods after abortion

The socio-demographic variable marital status 'single' (Table 1) and the gyneco-obstetric variable reason for abortion 'unwanted pregnancy' (Table 2) increased the use of contraceptive methods after abortion. All the other socio-demographic and obstetrical gynecological variables had no influence of contraceptive use. These data were different from those of David et al, which showed an

association between socio-cultural factors, gender, religion and local customs.¹⁸ This difference could be explained by the fact that their sample consisted of women in Nigeria who had had an abortion or not, while our study concerned only women who had already experienced an abortion. Olaitan found no association between contraceptive use and women's socioeconomic status, religion and cultural values. In addition, her study shows that the level of education of partners and their participation in the choice of contraceptive methods influenced the choice of contraceptives in couples. 19 The different types of contraception were not determined in our study. Post-abortion care (PAC) consultations do not directly involve spouses in our setting, whereas postabortion family planning should begin immediately withspousal counselling at this important stage.⁶

After logistic regression (Table 3), the two variables remain independently associated with the use of contraception. The choice of post-abortion contraceptive methods does not really depend on the history and the management. Some authors have found the role of the partner in the decision to use post-abortion contraception. However, this factor was not taken into account in our study.

Limitations

The subject of abortion is difficult to tackle in our Cameroonian context where the law on abortions remains very restrictive. This could lead to falsehoods. Also, the data collection being retrospective, we could have recall bias.

CONCLUSION

At the end of this study, 61.87% of participants used a contraceptive method after abortion. Being single and having unwanted pregnancies independently increased contraceptive use after abortions. An intensification of provider behavior changes communication and men's involvement would further improve the use of contraceptive methods after abortion.

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Institutional Ethics Committee

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