ORIGINAL RESEARCH ARTICLE

Contraceptive Use, Unwanted Pregnancies and Abortions among Hairdressers in Ibadan, Southwest Nigeria

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Abstract

The study was conducted in Ibadan, Southwest Nigeria to determine prevalence and predictors of contraceptive use, unwanted pregnancies and induced abortions among hairdressers. 1687 female hairdressers were surveyed using a cross sectional design and cluster sampling technique. Mean age was 27.0±8.1 years, 851 (50.4%) were single and 1005 (59.6%) qualified hairdressers. 817 (56.8%) of sexually active were currently using contraception. Attainment of secondary school education was a predictor of contraceptive use; OR=1.4, 95% CI (1.1-1.8). 429 (29.8%) ever had an unwanted pregnancy; 26.5 % among singles, 32.3 % among married. Predictors of unwanted pregnancies were age >30years; OR=1.9, 95% CI (1.4-2.5) and being a qualified hairdresser; OR=1.6, 95% CI (1.2-2.2). 347 (24.1%) ever had an induced abortion; 21.5.0 % of singles, 26% of married. Being married; OR=5.2, 95% CI (2.2-11.9) was the only predictor of induced abortion. Prevalence of unwanted pregnancies and abortions were high especially among married hairdressers *(Afr J Reprod Health 2017; 21[1]: 114-121).*

Keywords: contraception, female hairdressers, apprentices, induced abortion

Résumé

L'étude a été menée à Ibadan, au sud-ouest du Nigéria, pour déterminer la prévalence et les indices de l'utilisation de contraceptifs, des grossesses non désirées et des avortements provoqués chez les coiffeuses. 1687 coiffeuses ont participé à l'enquête à l'aide d'un modèle transversal et une technique d'échantillonnage en grappes. L'âge moyen était de 27,0 ± 8,1 ans, 851 (50,4%) étaient célibataires et 1005 (59,6%) des coiffeuses qualifiées. 817 (56,8%) des personnes sexuellement actives utilisaient actuellement la contraception. L'atteint de niveau de l'enseignement secondaire était un indice de l'utilisation de contraceptifs; OR = 1,4, IC à 95% (1,1-1,8). 429 (29,8%) ont eu une grossesse non souhaitée; 26,5% chez les célibataires, 32,3% chez les mariées. Les indices des grossesses non désirées étaient l'âge de plus de 30 ans; OU = 1,9, IC 95% (1,4-2,5) et étant une coiffeuse qualifiée; OU = 1,6, IC à 95% (1,2-2,2). 347 (24,1%) ont eu un avortement provoqué; 21,5% des célibataires, 26% des personnes mariées. Être marié; OU = 5.2, IC de 95% (2.2-11.9) était le seul indice de l'avortement provoqué. La prévalence des grossesses et des avortements non désirés était particulièrement élevée chez les coiffeuses mariées *(Afr J Reprod Health 2017; 21[1]: 114-121).*

Mots-clés: contraception, grossesses non désirées, coiffeuses, avortement

Introduction

Female hairdressers are mostly young women in their reproductive years. The social environment of the hairdressing salon provides the opportunity to discuss sexual exploits among peers and this may easily influence decisions in respect of sexual behavior. Previous studies have shown that majority of single hairdressers engage in sexual activity[1]. As a result of the low educational status of these women, they may be inadequately prepared to protect themselves from unwanted pregnancies and STIs including HIV/AIDS[2].

The current emphasis on HIV with a single risk prevention approach may lead women to pay less attention to the risk of unwanted pregnancy and abortions[3]. Unwanted pregnancy is an important public health issue in developing countries like Nigeria because of the resulting adverse social and health outcomes. Studies have shown that one-third of women of reproductive age in Nigeria experienced unwanted pregnancies[4-6]. The World Health Organization (WHO) estimates that one in five of the 210 million women who become pregnant each year worldwide resort to abortion[7]. The use of

contraceptive methods reduces the rate of unwanted pregnancies and the need for unsafe abortion[8]. Contraceptive prevalence in Nigeria is low with 15% of women in their reproductive years using some form of contraception[9]. In 2008, there were 28 abortions per 1,000 women aged 15–44 years in developing countries[5]. Bankole et al reported an abortion rate of 10% among all Nigerian women, 14% in Southern Nigeria and 16% among unmarried women[10]. A study in Ibadan reported that 18% of single hairdressers had ever had an abortion[1]. This abortion rate is higher than national and regional averages. There is a need to explore the factors associated with the occurrence of unwanted pregnancies and abortions among hairdressers in order to inform policies that will improve effective contraceptive use and enhance the reproductive health status of women in this occupational group.

Methods

The study was cross sectional in design and was carried out in Ibadan, Southwest Nigeria. Ibadan has about 2 million inhabitants whose major occupations are trading and artisanry in small scale enterprises[11]. Hairdressers, defined as individuals who cut or beautify hair, form a significant proportion of workers in artisan trades. They work in premises located in residential areas all over the city and are organized as a trade union, the Nigerian Beauticians and Hairdressers Association. Permission to carry out the study was obtained from the Hairdressers' Association and ethical approval was granted by the Oyo State Ministry of Health Ethical Review Committee.

A list of zonal groupings of hairdressing salons was obtained from the chairperson of the Hairdressers' Association in Ibadan. A cluster sampling technique was used to select fifteen zones out of an estimated fifty in the Ibadan metropolis by random sampling. The purpose of the study was explained to hairdressers at the zonal meetings in each zone. A list of hairdressing salons was provided by the chairperson of each zone. All salons registered with the zonal chairperson in the selected zones were visited. All hairdressers in the salons within the selected zones were eligible to participate in the study.

A structured questionnaire was used to collect information on demographic characteristics and occupational history of hairdressers, knowledge about contraceptive methods, and number of unwanted pregnancies ever had and experience of induced abortions. The questionnaire was pretested and modified before the commencement of the study to reduce any ambiguity or poor understanding of questions. It was translated into Yoruba, the local language, and back translated to English to check for correctness. Either the English or the Yoruba versions were used depending on the preference of the interviewee. The questionnaire was administered by trained research assistants after obtaining verbal informed consent from hairdressers and apprentices in each salon.

Dependent variables used in this study were current use of contraceptives, ever had unwanted pregnancies and ever had induced abortions. The WHO, NDHS and National HIV/AIDS and Reproductive Health Survey (NARHS) definitions were adopted[12-14]. Unwanted pregnancy was defined as a pregnancy that was not desired by the woman. Induced abortion was defined as the deliberate termination of a pregnancy, during the first 28 weeks. Contraceptive methods in this study included modern and traditional methods.

The independent variables were demographic characteristics assessed using the following indicators: age of respondents grouped as ≤30 and >30 years; marital status grouped as 'never married' and 'ever married', highest level of education, classified as Junior Secondary School and below and Senior Secondary School and above and job grade categorized as apprentice hairdresser and qualified hairdresser.

Data analysis

The data were analysed with SPSS (Statistical Package for Social Sciences) software programme version 15 (SPSS 15.0 Command Syntax Reference 2006). Bivariate analysis was done to test for association between variables using the chi-square test. Multivariable logistic regression was used to identify independent factors associated with outcome variables; contraceptive

Table 1: Socio-demographic characteristics of respondents

Socio-demographic characteristics	n (%)	N=1687
Age group(years)		
≤30years	1215(72.0)	
>30 years	472(28.0)	
Religion		
Christian	1118(66.3)	
Muslim	563(33.4)	
No response	6(0.3)	
Marital Status		
Single/Never married	851(50.4)	
Married	836(49.6)	
Educational Status		
Junior secondary and below	391(23.2)	
Senior secondary and above	1296(76.8)	
Job Grade		
Apprentice hairdresser	682 (40.4)	
Qualified hairdresser	1005 (59.6)	
Years engaged as hairdresser		
<10 years	1207(71.6)	
≥10 years	451(26.7)	
No response	29(1.7)	

use, unwanted pregnancy and induced abortion. Variables significantly associated with outcome variables at p=0.05 were included in the logistic regression model. The 'enter' option of the logistic regression in SPSS was used for variable selection where all variables in a block were entered in a single step. Odds ratios and their 95% confidence intervals were obtained. The level of significance for all tests was set at 5%.

Results

A total of 1687 female hairdressers were interviewed comprising 682 (40.4%) apprentices and 1005 (59.6%) qualified hairdressers. Their ages ranged between 11 and 68 years with a mean age of 27.0±8.1 years. Majority 1215(72.0%) were aged 30years and above. 1118(66.3%) were Christians and 563(33.4%) were Muslims. Eight hundred and fifty-one (50.4%) were single, 836(49.6%) were ever married. A total of 391(23.2%) had junior secondary education and below and 1296 (76.8%) had at least secondary education. Most, 1207 (71.6%) had been engaged in hairdressing for less than 10 years (Table 1).

Prevalence of contraceptive use, unwanted pregnancy and abortion

On the whole, 1438 (85.2%) had ever had sex and a total of 604 (71.0%) singles had ever had sex. Table 2 shows the sexual and reproductive health characteristics of sexually active respondents. One thousand one hundred and twenty-four respondents (78.2 %) had ever used a contraceptive method; 77.2% of singles and 79.0% of married respondents while 817 respondents (56.8%) were currently using a contraceptive method at the time of the study; 59.7% of singles and 54.6 % of married. One thousand and seventeen (70.7%) had ever been pregnant; 35.0 % of singles and 96.6 % of married. Four hundred and twenty-nine (29.8%) had ever had an unwanted pregnancy; 26.5 % singles and 32.3 % married while 347 (24.1%) had ever had an induced abortion; 21.5% of sexually active singles and 26.0 % of married respondents. These differences were all statistically significant except for ever and current contraceptive use.

A total of 1623 (96.2%) had ever heard of a contraceptive method. However, when asked about specific contraceptive methods, the male condom was the most known, reported by 1630 (96.6%), while foam/jelly was least known by 158(9.4%). Table 3 shows that overall; the male condom was the most used contraceptive method by 395 (23.6%) respondents. Use of withdrawal method 189 (11.2%), injectables 89 (5.3%), emergency contraception 63 (3.7%), oral contraceptive pills 58 (3.4%) and rhythm method 53 (3.1%) were also reported. Female condom 1 (0.1%) and foam/jelly 1(0.1%) were the least used. There were significant differences in the current use of some contraceptive methods between single sexually active and married respondents respectively: male condoms (29.4%, 17.3%); injectables (0.8%, 9.8%); pills (1.5%, 5.4%); rhythm method (1.8%, 4.5%); withdrawal method (7.9%, 14.6%); intrauterine contraceptive device (0.4%, 4.8%) and lactational amenorrhoea method (0.1%, 1.4%).

Table 2: Sexual and reproductive health characteristics of married and sexually active single respondents **N=1438**

Sexual and reproductive health characteristics	Sexually active singles n= 604 n (%)	Married n=834 n (%)	Total N=1438 n (%)	P value
Ever used contraceptive method	466 (77.2)	658 (79.0)	1124 (78.2)	0.31
Current Contraceptive use	361 (59.7)	456 (54.6)	817 (56.8)	0.062
Ever been pregnant**	211 (35.0)	806 (96.6)	1017 (70.7)	0.000
Ever had unwanted pregnancy *	160 (26.5)	269 (32.3)	429 (29.8)	0.019
Ever had induced abortion**	130 (21.5)	217 (26.0)	347 (24.1)	0.000

*p <0.05 **p <0.001

Table 3: Contraceptive Method Currently Used by Respondents N=1687

Contraceptive method	Single n (%)	Married n (%)	Total n (%)
Male Condom	250(29.4)	145(17.3) *	395(23.6)
Injectables	7(0.8)	82(9.8) *	89(5.3)
Oral contraceptive pills	13(1.5)	45(5.4) *	58(3.4)
Rhythm Method	15(1.8)	38(4.5) *	53(3.1)
Withdrawal method	67(7.9)	122(14.6) *	189(11.2)
Female condom	0(0.0)	1(0.1)	1(0.1)
Intrauterine Contraceptive Device	3(0.4)	40(4.8) *	43(2.5)
Lactational Amenorrhoea Method	1(0.1)	12(1.4) *	13(0.8)
Female sterilization	0(0.0)	1(0.1)	2(0.1)
Implants	0(0.0)	4(0.5) *	4(0.2)
Ring method	0(0.0)	2(0.2)	2(0.1)
Emergency contraception	37(4.3)	26(3.1)	63(3.7)
Chain	0(0.0)	2(0.2)	2 (0.1)
Armlets	0(0.0)	2(0.2)	2 (0.1)
Diaphragm	0(0.0)	2(0.2)	2 (0.1)
Foam/Jelly	0(0.0)	1 (0.1)	1 (0.1)

*p<0.05

Predictors of unwanted pregnancy, abortion and contraceptive use

Table 4 presents the predictors of the main outcome measures of the study; current use of contraceptives, ever been pregnant, ever had unwanted pregnancy and ever had induced abortions. Results for all sexually active women single and married are presented. The only predictor of current use of contraceptive method was attainment of secondary school education; OR=1.4, 95% CI (1.1-1.8). Predictors of ever been pregnant were age >30years; OR=2.8, 95% CI (1.5-4.9), being married; OR=26.0, 95% CI (16.4-39.7) and being a qualified hairdresser; OR=2.4, 95% CI (1.7-3.4). Predictors of unwanted pregnancies were age >30years; OR=1.9, 95% CI (1.4-2.5) and being a qualified hairdresser; OR=1.6, 95% CI (1.2-2.2). Married hairdressers were more likely to have ever had induced abortions, OR=5.2., 95% CI (2.2-11.9).

Table 5 shows the results for sexually active single hairdressers only. The only predictor of current use of contraceptive method was attainment of secondary school education; OR=1.9, 95% CI (1.2-2.9). Predictors of ever been pregnant were age >30years; OR=4.2, 95% CI (1.8-9.7), and being a qualified hairdresser; OR=2.6, 95% CI (1.8-3.8). Predictors of unwanted pregnancies were age >30years; OR=2.1, 95% CI (1.01-4.4), and being a qualified hairdresser; OR=1.9, 95% CI (1.3-2.8). None of the tested variables were significantly associated with experience of induced abortion.

Among married hairdressers, the predictor of unwanted pregnancies was age >30years; OR=1.9,

Table 4: Multiple logistic regression of factors associated with reproductive health variables in all sexually active respondents N=1440

Variable	Current use of contraceptive OR (95% CI)	Ever been pregnant OR (95% CI)	Ever had unwanted pregnancy OR (95% CI)	Ever had induced abortion OR (95% CI)
Age group (years)				
≤30years	1	1	1	1
>30 years	1.1(0.8-1.4)	2.8(1.5-4.9)**	1.9(1.4-2.5)**	0.9 (0.5-1.6)
Marital Status				
Single/Never married	1	1	1	1
Married	0.8(0.6-1.1)	26.0(16.4-39.7)**	0.8 (0.6-1.0)	5.2 (2.2-11.9)**
Level of education				
Junior secondary school and below	1	1	1	1
Senior secondary school and above	1.4(1.1-1.8)*	0.7(0.4-1.0)	1.0(0.7-1.3)	0.9 (0.5-1.6)
Job Grade				
Apprentice hairdresser	1	1	1	1
Qualified hairdresser	1.0(0.7-1.3)	2.4 (1.7-3.4)**	1.6(1.2-2.2)**	1.4(0.6-3.3)

*p<0.05 **p<0.001

Table 5: Multiple logistic regression of factors associated with reproductive health variables of single sexually active hairdressers N=612

Variable	Current use of contraceptive OR (95% CI)	Ever been pregnant OR (95% CI)	Ever had unwanted pregnancy OR (95% CI)	Ever had induced abortion OR (95% CI)
Age group (years)				
≤30years	1	1	1	1
>30 years	1.3(0.6-2.7)	4.2(1.8-9.7)*	2.1 (1.0-4.4)*	2.0 (0.3-11.5)
Level of education				
Junior secondary school and below	1	+	1	1
Senior secondary school and above	1.9(1.2-2.9)*		1.6(0.9-2.7)	1.3(0.1-12.4)
Job Grade				
Apprentice hairdresser	1	1	1	1
Qualified hairdresser	0.9(0.6-1.3)	2.6 (1.8-3.8)*	1.9(1.3-2.8)*	5.0(0.6-43.2)

*p<0.05
+ Not significant on bivariate analysis

95% CI (1.4-2.6). No other socio-demographic variable was significantly associated with current use of contraceptive, ever been pregnant or ever had induced abortion, Table 6.

Discussion

Majority of hairdressers in this study were sexually active. Almost all respondents had heard about a contraceptive method. This is comparable to reports by other researchers[15-16]. In spite of their awareness of contraceptive methods, about two-thirds of respondents had ever used any and 57% of them were currently using a contraceptive method at the time of the study even though 85% of them were sexually active. Current use of contraceptives was however higher than the national contraceptive prevalence rate of 15% and

Table 6: Multiple logistic regression of factors associated with reproductive health variables of married hairdressers N=**836**

Variable	Ever had unwanted pregnancy OR (95% CI)	Ever had induced abortion OR (95% CI)
Age group (years)		
≤30years	1	1
>30 years	1.9 (1.4-2.6)**	0.9(0.5-1.5)
Level of education		
Junior secondary school and below	1	1
Senior secondary school and above	0.8 (0.6-1.1)	0.9 (0.5-1.6)
Job Grade		
Apprentice hairdresser	1	1
Qualified hairdresser	1.1(0.7-1.8)	0.9(0.4-2.3)

**p<0.001

regional prevalence rate of 32% in the southwestern region of Nigeria where the hairdressers were situated[13]. The overall contraceptive use prevalence is however lower than that reported among women in Zimbabwe (59%), Egypt (60%), and Algeria (61%)[17]. Over half of the single sexually active hairdressers were currently using contraceptives. A high contraceptive use rate has been reported among singles[13]. The male condom was the mostly known and used contraceptive method, similar to results of the NDHS 2008 and 2013[13,9] and that of other researchers[1,18]. Apart from its contraceptive function the male condom provides the additional advantage of protection from sexually transmitted diseases[8]. It is notable that whilst the use of female condom can be initiated by women and also helps to protect against both pregnancy and sexually transmitted infections, it was the least used in this female population. Intervention programmes should be geared towards increasing awareness of the female condom, its use and benefits.

Respondents who had at least secondary school education were more likely to use a contraceptive method. This finding is corroborated by NDHS 2008[13] and 2013[9], NARHS[14] and other researchers[10,18] who reported that contraceptive use increased with level of education. Those with higher level of education are more likely to have access to information on contraceptive methods and sources of family planning services thus influencing their use.

Though contraceptive prevalence among hairdressers was higher than National figures [13] unwanted pregnancies was 29.8%, similar to findings of other researchers. Overall prevalence of unwanted pregnancy was 24% among women in both Ethiopia and Kenya and 26% in Iran[19-21]. In Nigeria, about one-fourth of women in a study conducted in eight states reported unwanted pregnancy[22]. Similarly, Oye-Adeniran et al reported that 26.6% of women in Southwestern Nigeria had unwanted pregnancy at some point in their lives [4]. It is noteworthy that married women in our study reported a prevalence of unwanted pregnancy of 32%. This was much higher than 13% reported for married women in both Kenya and Eastern Sudan[20,23]. The findings suggest that hairdressers may be at increased risk of unwanted pregnancies.

In many cases, unwanted pregnancies result in abortion[10]. Overall, one quarter of all sexually active women and 20% of all women in this study ever had an induced abortion. This is much higher than the estimated abortion rate of 28 per thousand for women in the reproductive age group in West Africa [5] and twice as high than 10% abortion rates in all women in Nigeria[10]. In this study induced abortion rates among sexually active singles was 21.5%. Higher abortion rates among singles have been reported in Nigerian literature. An abortion rate of 47.2% was reported among undergraduates in Port-Harcourt [24] and 63.5% among students of tertiary educational institutions in Ilorin[15]. However, unwanted pregnancy and abortion rates have been reported to be higher among women who are young, unmarried and still in school[10,20,22,25]. In a study conducted in eight states of Nigeria, women who had secondary or university-level education reported being too young or not wanting to interrupt their schooling as their primary reason for seeking abortion[22]. This may explain why undergraduates reported more abortion than hairdressers in this study. The abortion rate among sexually active single hairdressers cannot be compared with these studies because hairdressers are mainly out of school youths.

Among sexually active single respondents, those who were older, qualified, with at least secondary school education currently used contraceptive methods, were ever pregnant and had unwanted pregnancies. This is probably because they have had longer periods of being single and more opportunities to engage in sexual intercourse.

Married hairdressers were more likely to have unwanted pregnancies and induced abortions than their single counterparts. This is contrary to findings by other researchers[5,20,22, 25]. High rates of unwanted pregnancies may be due to a lower contraceptive use rate among married hairdressers in this study. The higher abortion rates among married hairdressers need to be further explored. Focus group discussions could help to unravel the factors that underlie these findings.

This study has some limitations. The use of contraceptive methods during the time unwanted pregnancy was conceived was not elicited. There could also have been underreporting of induced abortions among respondents due to the stigma associated with abortion because it is illegal in Nigeria.

Conclusion

This study identified a high level of awareness of contraceptive methods among hairdressers and high prevalence rates of unwanted pregnancies and induced abortions among married hairdressers. We conclude that female occupational groups should be provided with reproductive health education including information on effective contraceptive methods. For hairdressers in particular, intervention programmes should be geared towards improving contraceptive use to prevent unwanted pregnancies and abortions.

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Declaration of Conflict of interest

We declare no potential conflicts of interests with respect to authorship and/or publication of this article.

Contribution of Authors

FO conceived and designed the study. MB supervised data collection and did data analysis. Manuscript was prepared and approved by both FO and MB.

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