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Original Article

Determinants of contraceptive usage among female apprentices in Ilorin Nigeria

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محددات استخدام موانع الحمل بين المتدربات الإناث في ايلورين نيجيريا

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خلفية الملخص: معدل وفيات الأمهات مرتفع في معظم البلدان النامية وعدد كبير من المضاعفات ناجمة عن اجراء الإجهاض غير المأمون. وغالبا ما تكون النساء الشابات والعاملات النشطات أكثر عرضة للخطر ، وتقع غالبية المتدربات الإناث ضمن هذه المجموعة. تمت دراسة استخدام موانع الحمل بين المتدربات الإناث ضمن هذه الجموعه في ايلورين ، نيجيريا.

الطريقة: شاركت خمسمائة وستة عشره مستجيبًه في هذا الاستطلاع من خلال الرد على استبيان طرح عليهن .

النتيجة: متوسط عمر المستجيبات كان 22.34 ± 6.8 سنة. متوسط العمر عند نزول الطمث كان 13.28 ± 2.12 سنة ومتوسط العمر عند حدوث أول اتصال جنسي كان 18.45 ± 3.9 سنة. وكانت مهنة المصدر لوسيلة الاجهاض الأكثر شيوعاً هو بائع الدواء الشعبى 124 (24٪) ، يليه الصيدلى 114((22٪) ، 304 (59٪) كانت تدخل فردى ، 112 (21.7٪) كن متزوجات بينما 148 (28.7٪) حصلن على تعليم ابتدائي. بين المستجيات ، 79.5 ٪ و 64 ٪ كن يعرفن الواقي الذكري والحبوب المركبه لمنع الحمل عن طريق الفم كن على التوالي. 48.3٪ فقط استخدمن وسيلة واحدة على الأقل لمنع الحمل في الماضي. كانت وسائل منع الحمل الأكثر شيوعًا هي الواقي الذكري (42.9٪). أقل استخدام كانت حبوب منع الحمل مجتمعة (11.8 ٪) وكان استخدام حبوب منع الحمل للحالات الطارئه حسب المستوى التعليمي (P = 0.027) ، وكانت تستخدم فقط من قبل المتدربين مع التعليم الرسمي. و كان استعمال وسائل منع الحمل الثى تتعارض مع المعتقدات الدينية هو السبب الأكثر شيوعًا لعدم الاستخدام يليه الخوف من العقم في المستقبل كمضاعفات لمنع الحمل.

الخلاصة: كانت المعتقدات الدينية والخوف من التعقيدات هي المعوقات الرئيسية لاستخدام وسائل منع الحمل على الرغم من المستوى المرتفع للوعي. و على الرغم من أن استخدام الواقي الذكري على نطاق واسع الذي يقى من الأمراض المنقولة جنسيا عند هذه المجموعة الأكثر عرضه للمخاطر هو أمر مقبول ومشجع ، إلا أن المحاولات لا تزال تركز على تحسين نسبة استعمال موانع الحمل بين المتدربين.

Abstract ***Background:*** Maternal mortality is high in most developing countries and a significant number are from complications arising from induced unsafe abortion. The single, young and sexually active women are often more vulnerable, majority of the female apprentices fall within this group. Use of contraceptive among female apprentices in Ilorin, Nigeria was studied in this article.

Methods: Five hundred and sixteen respondents participated in this survey through interview administered questionnaires.

Results: The mean age of respondents was 22.34 ± 6.8years; of menarche was 13.28 ± 2.12 years and of first sexual exposure was 18.45 ± 3.9 years. The most common vocation was apprentice medicine/chemist vendor 124 (24%), followed by tailoring 114 (22%), 304 (59%) were single, 112 (21.7%) were married while 148 (28.7%) had primary education. Among the respondents, 79.5% and 64% were aware of condoms and combined oral contraceptive pills respectively. Only 48.3% had used at least one contraceptive method in the past. Most commonly used contraceptive was the male condom (42.9%). The least used

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was the combined pill (11.8%). Use of emergency pills was related to educational level (p = 0.027), used only by apprentices with formal education. Contraception as a contradiction to religious beliefs was the commonest reason for non-use followed by fear of future infertility as a complication of contraception.

Conclusion: Religious beliefs and fear of complications were the major hindrances to contraceptive uptake despite the high level of awareness. Although the widespread use of male condom, which protects against sexually transmitted diseases, in this high risk group is acceptable and encouraging, attempts should still be focused on improving contraception uptake among apprentices.

Keywords: Apprentices, contraceptives, usage

Introduction

Maternal mortality rate is still very high in developing countries and more so in Nigeria which still has one of the highest rates in the world. Complications following unsafe induced abortion are a leading cause of maternal mortality in Nigeria.[1] Unplanned and unwanted pregnancies are mostly a direct consequence of poor or none use of contraception and are one of the commonest causes of induced abortions, majority of which are unsafe.[2] Much work has been done on contraceptive use among adolescents in secondary schools and among undergraduates in Nigeria; however reports among young female apprentices are scanty. Most of these apprentices are in the age bracket with highest level of sexuality and highest tendency to engage in 'risky sex'.[3,4]

Risky sexual behaviour is commonly defined as behaviour that increases one's risk of contracting sexually transmitted infections and experiencing unintended pregnancies. They include having sex at an early age, having multiple sexual partners, having sex while under the influence of alcohol or drugs, and unprotected sexual behaviours.[5]

More than one-third of all pregnancies are unintended and 1 in 5 ends in abortion.[6] In developing countries, two-thirds of unintended pregnancies occur among women who were not using any method of contraception.[7] Greater contraceptive access and use alone can thus drastically reduce safe and unsafe abortion by reducing unintended pregnancies.

Abortion is still illegal in Nigeria, thereby leading to a lot of clandestine termination of pregnancy, especially by unqualified personnel in unsuitable conditions and places. This is compounded by poor access to contraceptives by unmarried youths. Contraceptive use is directly affected by sex education, the availability of contraceptives, its cost and cultural practices. This is affected by limited access to balanced and accurate information and easy availability. The fear of side effects and negative cultural and religious views and attitudes of parents and guardians to contraceptive use also has a strong influence on these youths.[8]

Vocational and technical education is the acquisition of skills and techniques in chosen occupation or profession to enable an individual earn a living.[9] It is offered on both formal and informal levels in Nigeria. Formal education is provided by both government and private institutions, while informal education is provided largely by unaccredited training institutes or practitioners and this is mainly through the indigenous apprenticeship system.

The apprenticeship system was the earliest type of vocational education practiced in Nigeria and it provided employment for youth as they learned how to use their hands in a specific trade (vocation).[10] However, technical and vocational skills/degrees are generally regarded as inferior to regular academic degrees and are more common among youths in the lower socioeconomic group.[11]

Youths learning vocations usually span across the adolescent age extending to the mid twenties, majority are usually between ages of 12-25.[12] Youths may proceed to apprenticeship in their chosen vocations after either primary school, secondary school education, and in a few case tertiary education, a handful that receive no formal training at all before proceeding to apprenticeship. Duration of training in these

vocations depends on various factors.[8,12] Common vocations include sewing and garment making, hair making, learning to sell and dispense drugs, this usual involves learning to 'prescribe' drugs. Factors that are believed to promote use of modern contraceptives such as good level of formal education and high socioeconomic status are largely deficient in this group of youths and adolescents, educational status being the most significant predictor of contraceptive use. Another important negative factor for these youths is difficulty in accessing family planning services.[6,13-15]

This study is therefore aimed at assessing the knowledge and use of the various modern contraceptive methods among these female apprentices and factors that determine the use or failure to use of the contraceptive methods by the respondents.

Materials and Methods

The study was a cross sectional survey conducted in Ilorin, the capital city of Kwara state, Nigeria. It is essentially an urban settlement, located in the North central geopolitical zone of Nigeria. A total of 550 questionnaires were administered to female apprentices learning various vocations in different areas of the city. However, 516 were adequately filled and could be analysed. The study was done over a 4 months period from November 2013 to February 2014. The questionnaire had been pretested among some non participants. The questionnaire was made up of sections on bio data, family and social history, knowledge of contraception and use of contraception, past obstetric and gynaecologic history. The respondents were counselled about the study and consent was obtained before administering the questionnaires. Most of these were administered by the researchers and trained assistants on a person to person basis in a manner that ensured confidentiality, especially in cases where there was difficulty with reading or where there was need to translate the questionnaire to the local language. Some were self administered. Data was analyzed using SPSS version 18 software. A p value of ≤ 0.05 was regarded as statistically significant.

Results

Of the 550 questionnaires, 516 could be analyzed giving a response rate of 93.8%. The mean age of respondents was 22.34 ± 6.795 years; of menarche was 13.28 ± 2.121 years, while of first sexual exposure was 18.45 ± 3.9 years. The most common vocation was learning how to dispense drugs (chemist), this was followed by tailoring and hairdressing (Fig. 1.)

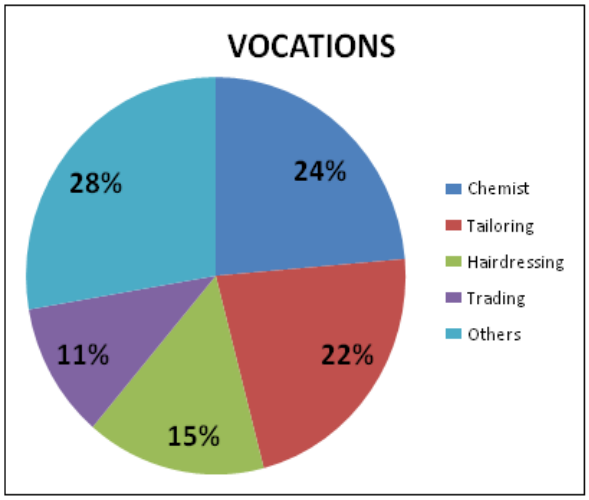

Figure 1: Shows the vocations and the frequency in percentages.

About 249 respondents had used one or more types of contraception giving a use prevalence rate of 48.3%. There had been a total of 253 pregnancies, 51 (20.2%) of these had been voluntarily terminated, 68 (26.9%) had ended in spontaneous miscarriages, while there had been 134 deliveries. Symptoms suggestive of pelvic inflammatory disease had been present in 166 (32.2%) respondents.

Table 1 shows the sociodemographic characteristics of the respondents. The age group 15 years to 24 years represented about 60% of the respondents, 404 (78%) were single and had never been married while 112 (21%) were married. Highest academic attainment in majority (42.8%) was secondary school education.

Table 2 shows the awareness and use of contraceptives among respondents. Awareness of contraception was quite high among the respondents with 410 (79.5%) being aware of condom and about 287 (55%) of pills and 333 (64.3%) emergency contraceptives.

Table 1: Sociodemographic characteristics of respondents.

	Frequency	Percentage
Age (years)		
10-14	43	8.3
15-19	166	32.2
20-24	144	27.9
25-29	89	17.2
30-34	38	7.4
>35	36	7.0
Marital Status		
Single	304	59.0
Married	112	21.7
Engaged	100	19.4
Academic Attainment		
None	16	3.1
Primary	148	28.7
Secondary	221	42.8
Tertiary	131	25.4

Table 2: Awareness and use of modern contraceptives by respondents.

Contraception	Aware of n (%)	Has used	Heard of but never used
Condoms	410(79.5)	176(42.9%)	234(57.1%)
Injectables	333(64.5)	63(18.9%)	260(78.1%)
Emergency	332(64.3)	90(27.1%)	242(72.9%)
Combined oral contraceptive pills	287(55.6)	34(11.8%)	253(88.2%)
Intrauterine Device(IUD)	287(55.6)	45(15.7%)	242(84.3%)

However, despite the high levels of awareness of the various forms of contraception a much lower number of respondents actually used them. Some respondents had tried more than one form of contraception. Other forms of contraception or contraceptive methods mentioned by respondents included withdrawal method, implants, herbal methods and even use of substances such as salt and salt solution. Emergency contraceptives used included Postinor® (single tablet of Levonogestrol), Postinor 2® (2 tablets of Levonogestrel) and Gynaecosid® (Methyl-oestrenolone 5mg and Methylestradiol 0.3mg). Most common source of information concerning contraception was the media accounting for 32%, others were drug stores and friends, shown in Table 3. Only 1.6% of the respondents had never heard of contraception.

Table 3: Sources of information about contraceptives

Source of Information	Frequency	Percentage
Radio/Television	166	32.2
drug store/chemist	142	27.5
friends	109	21.1
Boyfriend/sexual partner	42	8.1
Others	49	9.5
Never heard of it	8	1.6

Table 4 shows reasons for use/non-usage of contraception among these respondents. One hundred and twenty-six (24.4%) were scared of using contraceptives because of future risk of infertility. This was followed by negative responses from their partners. Misconception about adverse effects of contraceptives such as it causing hypertension was another factor discouraging its use.

Table 4: Reasons for use and non-usage of contraception among respondents

Factors	Freq (n)	%
Non-usage		
It is a sin to use contraception	133	25.8
It may cause infertility	126	24.4
My boy friend does not like it	88	17.1
I may develop hypertension	57	11.0
May make me fat or thin	39	7.6
Others	26	5.0
No reason Indicated	6	1.2
Use		
Prevents a person from getting pregnant	165	32.0
Some protect from sexually transmitted disease	175	33.9
Avoids the need for a termination of pregnancy	80	15.5
Others	25	4.8
No Reason given	71	13.8

Reasons for use included preventing undesired conception, preventing transmission of sexually transmitted disease and eliminating or reducing the need for termination of pregnancy and the associated risks. The use of various types of contraceptive agents was cross tabulated with sociodemographic characteristics and this is shown in Table 5. The relative risk (RR), confidence interval (CI) and *p* values were also assessed. Some of

the apprentices had used more than one type of contraceptive, this was particularly true among the married. Use of Emergency pills was higher among educated respondents and this was statistically significant. The other types of contraceptive methods also showed an increase in use with educational attainment although not statistically significant however, the chances of the educated ones using pills and injectables was about two times higher (RR 2.05 and 2.40) respectively as compared to others. On further separation into levels of education, contraceptive use was found to be higher more among respondents with secondary school level of education than among those with tertiary level of education though this is not shown in this table. Type of contraceptive used was also found to be significantly related to both marital status and age. Use of intrauterine contraceptive devices and injectables were found to be statistically significantly higher among the married, while emergency contraceptive use significantly higher among the unmarried apprentices. Condom use was also much higher among the unmarried although not statistically significantly so. Contraceptive use on the whole was higher amongst those whose ages were equal to or above 21years and this was statistically significant except in the use of injectable contraceptives.

Table 5: Type of contraceptive cross tabulated with sociodemographic characteristics.

	Type of contraceptive used				
Variable	**IUCD**	**Condom**	**Pills**	**Injectables**	**Emergency**
	n (%)	n (%)	n (%)	n (%)	n (%)
Educational status					
None	1 (2.2)	4 (2.3)	2 (5.9)	4 (6.3)	1 (0.1)
Educated	44 (97.8)	172 (97.7)	32 (94.1)	59 (93.7)	89 (98.9)
RR (CI)	0.70 (0.094-5.161)	0.40 (0.211-1.97)	2.05 (0.479-8.549)	2.40 (0.797-7.204)	0.32 (0.042-2.358)
$\chi 2$ (p value)	0.509y (0.476)	2.184 (0.139)	0.099y (0.753)	0.096y (0.757)	4.893y (0.027)
Age group					
≤ 20	11 (24.4)	61 (34.7)	4 (11.8)	18 (28.5)	19 (21.1)
≥ 21	34 (75.6)	115 (65.3)	30 (88.2)	45 (71.5)	71 (78.9)
RR (CI)	0.58 (0.344- 0.982)	0.80 (0.629-1.008)	0.28 (0.109-0.698)	0.68 (0.452-1.016)	0.47 (0.313-0.715)
$\chi 2$ (p value)	63.110 (<0.001)	32.852 (<0.001)	72.651 (<0.001)	0.611 (0.434)	7.691 (0.006)
Marital Status					
Married	28 (62.2)	56 (31.8)	17 (50.0)	34 (54.0)	38 (42.2)
Not Married	17 (37.8)	120 (68.2)	17 (50.0)	29 (46.0)	52 (57.8)
RR (CI)	3.49 (2.587- 4.705)	1.93 (1.399-2.667)	2.54 (1.732- 3.715)	3.13 (2.311-4.250)	0.81 (0.630-1.041)
$\chi 2$ (p value)	12.069 (0.001)	3.147 (0.076)	1.953 (0.162)	14.394 (0.001)	29.63 (0.001)

$\chi 2$ = Chi Square, Y=Yates corrected chi square values, RR= Relative Risk, CI= Confidence Interval

Discussion

Education has been showed to have an important positive effect on contraceptive use.[16] Generally the more educated the individuals are, the higher the use of contraceptives. This study shows an unexpected higher prevalence in use of contraceptives (48%) especially when compared to similar studies among students of tertiary institution in similar region of the country because there was a greater percentage of primary and secondary education among respondents. This was similar to what was obtained by Omokhodion et al. in their study on contraceptive use among hair dressers in which a prevalence rate of 34% was obtained.[17] While studies among students in tertiary institutions[18,19] showed lower contraceptive use of 25.4% and 11.1% respectively. In this study there was also an increase in use of contraception with a corresponding increase in level of education; however, this was only statistically significant with use of emergency contraceptives with

p value of 0.027.

Although there was a high level of awareness of contraception with about 79% of respondents being aware of the male condom and 64% aware of emergency contraception and injectable forms there was still however a wide gap between the level of awareness and actual use of the contraceptives by the respondents. The most common cause of failure to use contraception was fear of future negative effects on fertility or health of respondents. This is similar to findings by Opoku among women learning a trade in a Ghanaian metropolitan population[20] and Abiodun et al. study among female undergraduates.[19] Such misconceptions include risk of infertility and development of medical complications. This is a recurring negative factor affecting the use of contraception in most of the studies and suggests that the information disseminated especially by the media which is the most common source of information is probably inadequate in these areas; this wrong notion needs to be addressed and corrected. Others had strong religious inclinations against contraception while dislike by the boyfriends or husbands was another negative factor. This last factor is particularly significant because the most common contraception used is the male condom, thereby putting the women in a vulnerable position.

The most common source of information was the media followed by the drug stores, unlike what was obtained in some studies in which the most common source of information was from friends and this suggests an increase in public enlightenment and education about contraception via media.[19,21] Study by Okezie et al. also strongly suggested that mass media messages have a powerful effect on modern contraceptive use.[16] The most common contraceptive was the condom. This was also observed in some other studies[17,22,23] and could possibly be because it appears the most easily accessible contraceptive.

An important finding in this survey was that many of the respondents reported the use of local formulations such as the use of salt solution, lemonade and herbal concoctions as emergency contraceptive agents instead of the conventional modern and effective methods. Low knowledge of emergency contraceptive methods likely contributed to this practice. This is very unacceptable when one considers the complications that may accompany their use and ineffectiveness of these methods.

Sex related discussions are still fairly restricted in the area and not all information may have been volunteered, some may have been altered to give an impression of little knowledge of sex or sexual exposure. Some bias may have been introduced especially in the research administered questionnaires.

In conclusion, the study revealed a fairly high level of awareness of the different types of contraception but not a corresponding utilization and this appears to be because of gaps or possible misconception in the information disseminated. Dissemination of information through public enlightenment should increase and the information should be reassuring and aimed at correcting misconceptions and dispelling fears. Availability of emergency contraceptives especially, to this group should be increased.

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Ethical clearance: Obtained.

Informed consent form: Obtained.

References

1. Okonofua FE, Hammed A, Nzeribe E, et al. Perceptions of policymakers in Nigeria toward unsafe abortion and maternal mortality. Int Perspect Sex Reprod Health. 2009;35:194-202.
2. Umoh AV, Abah MG. Contraception awareness and practice among antenatal attendees in Uyo, Nigeria. Pan Afr Med J. 2011;10:53.
3. Morhason-Bello IO, Oladokun A, Enakpene CA, Fabamwo AO, Obisesan KA, Ojengbede OA. Sexual behaviour of -

school adolescents in Ibadan, South-West Nigeria. Afr J Reprod Health. 2008; 12(2):89-97
4. Atere AA, Wahab EO, Ajiboye OE, Shokoya HO, Akinwale AA, Oyenuga AS. Awareness of STIs and contraceptives use among out-of-school youths in Nigeria. Ethno Med. 2010;4(2):131-7.
5. Oluwatosin SA, Adediwura AA. Undergraduates' history of sexual abuse, parenting style and sexual risk behaviour in Southwestern Nigeria. AFRREV. 2010;4(2):139-55.
6. Haddad LB, Nour NM. Unsafe Abortion: unnecessary maternal mortality. Rev Obstet Gynecol. 2009;2(2):122-6.
7. Rasch V. Unsafe abortion and postabortion care - an overview. Acta Obstet Gynecol Scand. 2011;90(7):692-700. doi: 10.1111/j.160004122011.01165.x.
8. Ahazie W. The traditional informal apprenticeship system of West Africa as preparation for work: in International Handbook of Education for the changing World of work Maclean, Rupert, Wilson, David(Eds.). Dordrecht, Netherlands: Springer Science + Business Media; 2009: 261-75.
9. Uwaifo VO. Industrializing the Nigerian society through creative skill acquisition vocational and technical education programme. Int NGO J. 2009;4(4):142-5.
10. Oguntuyi AN. A viable vocational technical education curriculum: A tool for economic and technology development in Nigeria. Scholarly Journal Education. 2011;2(2):22-6.
11. Onu G, J, Onwughalu VC, Chiamogu AP. Redesigning education curricula as a panacea for unemployment and poverty reduction in Nigeria. PPAR. 2013;3(4):43-57.
12. Adekola G. Traditional Apprenticeship in the old Africa and its relevance to contemporary work practices in modern Nigerian communities. British Journal of Education, Society and Behavioural Science.2013;3(4):397-406. DOI:10.9734/BJESBS/2013/4292
13. Adanu RMK , Seffah JD, Hill AG, Darko R, Duda RB, Anarfi JK. Contraceptive use by women in Accra, Ghana: results from the 2003 Accra Women's Health Survey Afr J Reprod Health. 2009;13(1):123-33.
14. Orji EO, Onwudiegwu U. Prevalence and determinants of contraceptive practice in a defined Nigerian population. J Obstet Gynaecol. 2002;22(5):540-3.
15. Khan MA. Factors affecting use of contraception in Matlab, Bangladesh. J Biosoc Sci. 1996;28(3):265-79.
16. Okezie CA, Ogbe AO, Okezie CR. Socio-economic determinants of contraceptive use among rural women in Ikwuano area of Abia State, Nigeria. International NJO Journal. 2010;5:74-7.
17. Omokhodion FO, Onadeko MO, Balogun OO. Contraceptive use among hairdressers in South-west Nigeria. J Obstet Gynaecol. 2007;27(6):612-4.
18. Oye-Adeniran BA, Adewole IF, Odeyemi KA, Ekanem EE, Umoh AV. Contraceptive prevalence among young women in Nigeria. J Obstet Gynaecol 2005;25(2):182-5.
19. Abiodun OM, Balogun OR. Sexual activity and contraceptive use among young female students of tertiary educational institutions in Ilorin, Nigeria. Contraception. 2009;79(2):146-9.
20. Opoku B. Contraceptive use among 'at risk' women in a metropolitan area in Ghana. Acta Obstet Gynecol. 2010;89: 1105-7.
21. Oye-Adeniran BA, Adewole IF, Odeyemi KA, Ekanem EE. Sources of contraceptive commodities for users in Nigeria. PLoS Med. 2005;2(11):e306.
22. Tayo A, Akinola O, Babatunde A, Adewunmi A, Osinusi D, Shittu L. Contraceptive knowledge and usage amongst female secondary school students in Lagos, Southwest Nigeria. J Public Health Epidemiol. 2011;3(1):34-7.
23. Cadmus E, Owoaje E. Patterns of Contraceptive use among female undergraduates in the University of Ibadan, Nigeria. Internet scientific publications. http://ispub.com/IJH/10/2/4 396.