UNDER PEER REVIEW

Original Research Article

Coital abstinence and High Risk Sexual behaviour among husbands of postpartum women, in Ikenne, Southwestern Nigeria

ABSTRACT

Aims: To determine the prevalence and patterns of high risk sex and its relationship to the duration of coital sexual abstinence in husbands of postpartum women.
Study design: Cross sectional descriptive study.
Place and Duration of Study: Ikenne Local Government Area, in Ogun State, South Western Nigeria between, December 2014 and May 2015.
Methodology: Data were obtained with the aid of semi-structured interviewee administered questionnaires from 771 husbands of postpartum women using the multi-stage sampling technique.
Results: High risk sex occurred in 82/771 of the participants giving a prevalence of 10.6%. The duration of coital sexual abstinence was the most important risk factor (P<.001) while previous extramarital sexual relationship (P<.001, OR=41.70, 95%CI=18.07-96.07) and knowledge of own HIV status (P=.03, OR=1.71) also significantly determined its occurrence. Consistent condom use during unsafe sex was 6.1%, while STIs occurred in 3/82 (3.7%). The mean duration of coital abstinence observed was 7.62 ± 6.16 months with significantly longer durations occurring in rural men (8.30 ± 6.24 months) than in urban men (7.16 ± 6.01 months), P=.01. Intimate partner violence against the postpartum wife during the abstinence period was reported by 9/771 (1.2%) of the participants.
Conclusion: High risk male sex was a consequence of prolonged postpartum sexual abstinence. The duration of postpartum coital abstinence in Ikenne LGA is less than culturally prescribed.

Keywords: Postpartum, Risky sex, unsafe sex, sexual networking, Puerperium

1. INTRODUCTION

Unlike in pregnancy where coital abstinence is relative, all Nigerian tribes practice some form of mandatory postpartum sexual proscription.[1,2] Medically, coital abstinence is indicated in the first 2-3 weeks of the puerperium to allow healing and prevent genital tract infection. [3]

Traditionally the Yoruba race practiced agriculture as a means of livelihood and post-partum sexual abstinence helped the women to cope with both the demands of being a mother at home and a worker on the farm. The 'natural contraception' produced by this mandatory sexual abstinence made this possible. [4] The general belief deeply entrenched to uphold this practice among the Yoruba, was that a man should not have sexual relations with his wife when she is nursing a baby; the concept of lactation taboo.[1,2,5] It is also widely believed among the Yoruba that the semen may reach the breast milk and poison it, thus jeopardizing the health of the new-born when intercourse occurs before the culturally recommended time.[1,2] This abstinence period lasted until the child was weaned which may take up to two years or more.[2] Extra-marital sexual relations in men whether during pregnancy or postpartum; have been reported to be a consequence of abstinence.[4,6]

Unsafe sex has been shown to be a very potent mechanism for the spread of the HIV virus. Indeed, reports from some studies in Africa have shown that the greatest risk of HIV infection for married women lies within their marriage, and the greatest source of HIV infection is unprotected sex with their infected husbands.[7-9] A report in 2008 revealed that, up to 80% of new HIV infections among heterosexual urban dwellers in Africa occurred within marital or cohabiting relationships.[8] Prior HIV infection in the husband before the marital union or HIV infection contracted through extra-marital sexual relationship

UNDER PEER REVIEW

while still being married is the pathway to infection.[9] The permissiveness of traditional African people in condoning or only minimally reprimanding male extra-marital sexual activity makes married men more likely than married women to engage in high risk sex.[7] In addition, concurrent multiple sexual relationships have been postulated to heighten the risk of HIV transmission; an occurrence which is commoner among African men than in men from other parts of the world.[10]

Pregnancy and the postpartum period have been reported as predispositions for risky male sexual behavior with dire consequences such as Sexual Transmitted Infections (STIs); which include HIV, HPV and hepatitis. Studies have also shown that most men who had extramarital sexual relations at this time did so mostly with non-regular partners and condom use was extremely low. [11] Mother- to- child transmission risk has been reported to be significantly higher among women with recently acquired HIV infection in pregnancy or postpartum; compared to mothers who have been HIV positive prior to pregnancy or the postpartum period.[12]

Sexual abstinence for couples in the past was possible in a polygamous context where temporary separation of spouses was frequent, particularly after childbirth, alternative sexual outlets were however provided in their other mutually faithful wives.[5]

What has changed in recent times is the increasingly monogamous and nuclear society and adoption of new occupations and lifestyles, necessitated mainly by civilization and in many instances religion. Clearly the challenges facing the average Nigerian family today is different and the increasing economic reality has greatly reduced the practice of polygamy. Modernization also brings with it the benefit of better, more reliable and effective means of contraception, the better care of; and increasing survival of children, we are however currently faced with the reality of HIV, AIDS, hepatitis and other grave consequences of STIs such as infertility, cervical cancer and liver disease.[13] The belief in traditional prolonged postpartum sexual proscription still appears to have a strong grip and may produce sexual behavior inimical to prevention of these diseases.

The postpartum period is an appropriate time to observe married male sexual behavior during required abstinence; because unlike pregnancy where medical or even culturally indicated coital abstinence is only relative, most of the African tribes practice coital sexual abstinence, with variations only in duration. Recommended or demanded sexual abstinence may also be a reason for violence against women. In addition, healthcare workers are oftentimes faced with situations where the male partner requires counseling on sexual issues related to timing resumption of coital sexual relations with the nursing mother-wife and coping mechanisms when abstinence is indicated, currently opinions vary on best options.

This study was thus aimed at determining the prevalence and patterns of high risk sexual behavior in husbands of postpartum women and its relationship to the duration of sexual abstinence in Ikenne, LGA, South-western Nigeria.

2. MATERIAL AND METHODS

This study was conducted in Ikenne Local Government Area (LGA), one of the twenty LGAs in Ogun State,South Western Nigeria. This LGA, is made up of three urban towns and two rural villages. The urban towns are Iperu, Ikenne, and Ilisan, while the rural villages are Irolu and Ogere.[14] Ikenne local government spans 137.13km² with 202,980 inhabitants (National Population Commission, 2006). [15]

It was a community-based cross sectional descriptive study involving 771 husbands of postpartum women using the multi-stage sampling technique. The LGA was divided into 5 clusters according to the 5 towns, trade union groups were then selected from each town by computerized random sampling technique. This was followed by simple random sampling to select individual participant, at selected work places. The sample size was determined using the Leslie-Kish formula $n = z^2pq/d^2$. With the precision (d) set at 0.05, the prevalence of high risk sex of 48% obtained by Lawoyin et al (2002) in a study on

UNDER PEER REVIEW

husbands of postpartum women was used.[4,16] The value (n=384) obtained was then doubled (n=766) to remove cluster effect.

Data were obtained over a 6-month period with the aid of semi-structured pre-coded interviewee administered questionnaire designed by the authors. The questionnaire contained sections on socio-biologic data, which had mainly open-ended questions. Other sections included were durations of coital sexual abstinence, reasons for it and coping strategies. The occurrence and patterns of high risk sexual behavior section; contained mainly structured questions, leaving some open ended questions for questions involving duration. The questionnaire was translated to the Yoruba language and back-translated to English to ensure that it retained its meaning. A pre-test of the questionnaire was done on men attending a meeting of the commercial motorcycle riders association, in Ilishan-Remo and administrative workers of Babcock University. After obtaining verbal consent from them, the participants were given the questionnaires to fill. Those who could not write had their responses entered into the questionnaires for them by trained interviewers who were doctors and could speak the Yoruba language well, such interviews lasted 20 minutes averagely. Interpreters were used for the non-Yoruba speaking respondents whose answers were also audio-recorded in addition to their questionnaires being filled for them by the interviewers. The recorded answers were transcribed by independent transcribers and checked with the responses on the questionnaires for uniformity.

The collected data were analyzed using the Statistical Software Package for Social Sciences (SPPS) version 17.0 (Chicago, Illinois). Frequency tables were made and numerical data expressed as mean ± standard deviation. The results were tested for statistical significance thus: t- test was used to compare continuous variables while chi- square was used for comparison of categorical variables. The level of statistical significance was set at *P*-value of less than .05

The puerperium was defined as the period of the first six weeks following delivery of the index baby, while the postpartum period was taken as that period lasting up to one year following the delivery of the index baby, or the interval from delivery of the index baby to a subsequent pregnancy. Postpartum coital sexual abstinence was considered as the absence of penetrative peno-vaginal sexual intercourse between the respondent and his socially, culturally or legally accepted wife in the postpartum period. A husband was considered as a man 18 years old and above who was legally, customarily, religiously married to and or lives with a woman in a union whom his or her family or surrounding society has accepted as man and wife. High risk sex was considered as the occurrence of currently married or cohabitating men reporting having had coital sexual relations with a woman who is not known or socially, culturally, legally or religiously accepted as a wife. [17] It also extended to encompass sexual intercourse with someone who was susceptible to or infected with an STI whether a condom was used or not. [18] Early resumption of coitus was considered as postpartum sexual intercourse at 6 weeks or less after delivery of a baby.19] Prolonged coital abstinence was considered as sexual intercourse occurring for the first time 1 year or more after delivery. Intimate partner violence (IPV) was considered as the occurrence of Physical, emotional or verbal abuse against the postpartum wife.

3. RESULTS AND DISCUSSION

3.1. RESULTS

Eight hundred questionnaires were administered, but 771 were returned correctly completed, for participants who met inclusion criteria, giving a retrieval rate of 96.4%.

Table 1 highlights the socio-demographic characteristics of the respondents. Participants in the rural areas were significantly younger (mean age of 36.17±6.17 years, (*P*=.03) and had lower educational levels (*P*=.01). Other characteristics such as occupation (*P*=.13), religion (*P*=.90), tribe (*P*=.11), marriage setting (*P*=.72), knowledge of own HIV status (*P*=.79) and co-habitation with postpartum wife (*P*=.48) were however not significantly different, between the rural and urban respondents.

UNDER PEER REVIEW

130 **Table 1. Socio-demographic characteristics of participants**

Characteristics	Settlement		Total(n=771)	*P*-value (95% CI)
	Rural(n=308)	Urban(n=463)		
Age				
Mean(years)	36.17±6.17	37.31±7.50	36.85±7.01	.03(-0.01-0.13)
Educational level				
Primary	63(49.3%)	65(50.7%)	128	.01(0.01-0.02)
Secondary	192(40.0%)	288(60.0%)	480	
Tertiary	53(32.5%)	110(67.5%)	163	
Occupation				
Unemployed	3(15.8%)	16(84.2%)	19	.13(0.12-0.14)
Unskilled	64(38.1%)	104(61.9%)	168	
Skilled	192(41.7%)	268(58.3%)	460	
Professional	49(39.5%)	75(60.5%)	124	
Religion				
Christianity	255(39.9%)	385(60.1%)	640	.90
Islam	53(40.5%)	78(59.5%)	131	
Tribe				
Hausa	25(35.2%)	46(64.8%)	71	.11(0.10-0.11)
Igbo	24(30.4%)	55(69.6%)	79	
Yoruba	259(41.7%)	362(58.3%)	621	
Marriage Setting				
Monogamous	283(40.1%)	422(59.9%)	705	.72
Polygamous	25(37.9%)	41(62.1%)	66	
Cohabit with wife				
Yes	290(40.3%)	430(59.7%)	720	.48
No	18(35.3%)	33(64.7%)	51	

UNDER PEER REVIEW

Awareness of own HIV status				
Yes	170(39.5%)	260(60.5%)	430	.79
No	138(40.5%)	203(59.5%)	341	

n = number of participants

95%CI = 95% Confidence Interval

Table 2 reveals that 63/771 (8.2%) of the couples in Ikenne LGA, had resumed, coital sexual intercourse before 6 weeks. Men in the rural towns however had significantly longer durations of postpartum coital sexual abstinence than urban men (8.30 ± 6.24 months, *P*= .01, 95% CI of -0.25-2.02). It also showed that a significantly greater proportion of rural men 94/308 (30.5%) than urban men 95/463 (20.5%), abstained for periods of 12 months and above (*P*=.007). None of the participants abstained from sex with their postpartum wives for up to 3 years or longer.

Table 2. Duration of postpartum coital sexual abstinence in husbands of postpartum women

	Duration(months)			
Settlement	<6 weeks	6 weeks -<1 yr	1-<3yrs	***P*-value (95%CI)**
Rural (n=308)	22(7.1%)	192(62.4%)	94(30.5%)	.007
Urban (n=463)	41(8.9%)	327(70.6%)	95(20.5%)	
Total (n=771)	63(8.2%)	519(67.3%)	189(24.5%)	
	Mean Duration (months)			
Rural	8.30±6.24			.01 (-0.25-2.02)
Urban	7.16±6.01			
Total	7.62±6.16			
	Median = 6.00			
	Range = 29.5			

Table 3 shows that the duration of postpartum coital abstinence was not influenced by socio-demographic factors.

UNDER PEER REVIEW

Table 3. Socio-demographic Factors affecting the duration of postpartum coital sexual abstinence in husbands of postpartum women

Factor	Duration			Total	*P*-value (95% CI)
	<6 weeks (n=63)	6 weeks-<1yr (n=519)	1-<3rs (n=189)	(n=771)	
Age					
Mean	38.21±6.95	36.73±7.15	36.74±6.63	36.85±7.01	.34(0.33-0.35)
Educational Level					
Primary	7(5.5%)	92(74.2%)	29(22.7%)	128	.62(0.62-0.64)
Secondary	44(9.2%)	318(66.2%)	118(24.6%)	480	
Tertiary	12(7.4%)	109(66.9%)	42(25.7%)	163	
Occupation					
Unemployed	5(26.3%)	12(63.2%)	2(10.5%)	19	.10(0.09-1.10)
Unskilled	10(6.0%)	116(69.0%)	42(25.0%)	168	
Skilled	39(8.5%)	305(66.3%)	116(25.2%)	460	
Professional	9(7.3%)	86(69.4%)	29(23.3%)	124	
Tribe					
Hausa	7(9.9%)	46(64.8%)	18(25.3%)	71	.17(0.16-0.17)
Igbo	10(12.7%)	44(55.7%)	25(31.6%)	79	
Yoruba	46(7.4%)	429(69.1%)	146(23.5%)	621	
Religion					
Christianity	53(8.3%)	428(66.9%)	159(24.8%)	640	.85(0.85-0.87)
Islam	10(7.6%)	91(69.5%)	30(22.9%)	131	
Marriage setting					
Monogamous	58(8.2%)	472(67.0%)	175(24.8%)	705	.78(0.78-0.79)
Polygamous	5(7.6%)	47(71.2%)	14(21.2%)	66	
Cohabitation with wife					

UNDER PEER REVIEW

Yes					
No	60(8.3%)	485(67.4%)	175(24.3%)	720	.76(0.75-0.77)
	3(5.9%)	34(66.7%)	14(27.4%)	51	

The reproductive health factors did not exert any significant influence on the duration of postpartum sexual abstinence (Table 4).

Table 4. Reproductive health factors affecting the duration of postpartum coital sexual abstinence in husbands of postpartum women

	Duration				
	<6 weeks	**6 weeks-<1yr**	**1-<3rs**	**Total**	***P*-value**
Factor	**(n=63)**	**(n=519)**	**(n=189)**	**(n=771)**	**(95% CI)**
Mode of delivery					
Vaginal	58(8.0%)	489(67.7%)	175(24.3%)	722	.68
Caesarean section	5(10.2%)	30(61.2%)	14(28.6%)	49	(0.67-0.69)
Episiotomy/					
genital laceration					
Yes	8(9.6%)	52(62.7%)	23(27.7%)	83	.63
No	55(8.0%)	467(67.9%)	166(24.1%)	688	(0.62-0.64)
Postpartum obstetric complications					
Yes	6(10.1%)	39(66.1%)	14(23.8%)	59	.86
No	57(8.0%)	480(67.4%)	175(24.6%)	712	(0.85-0.87)
Duration					.18
of breastfeeding	17.92±3.40	17.36±3.45	18.51±3.64	17.69±3.52	(0.17-0.19)
Awareness of own HIV status					
Yes	34(7.9%)	280(65.1%)	116(27.0%)	430	.22

UNDER PEER REVIEW

No	29(8.5%)	239(70.1%)	73(21.4%)	341	(0.21-0.23)
Decreased libido (husband)					
Yes	6(8.6%)	41(58.6%)	23(32.8%)	70	.21
No	57(8.1%)	478(68.2%)	166(23.7%)	701	(0.20-0.22)

Figure 1 reveals that 9/771 (1.2%) of the participants in this study engaged in violent behavior against their postpartum wives during the abstinence period. The pie chart also shows that although 289/771 (37.5%) did 'nothing sexual' in that interval, a larger proportion 296/771 (38.4%) engaged in non-coital, non-orgasmic sex with the postpartum wife.

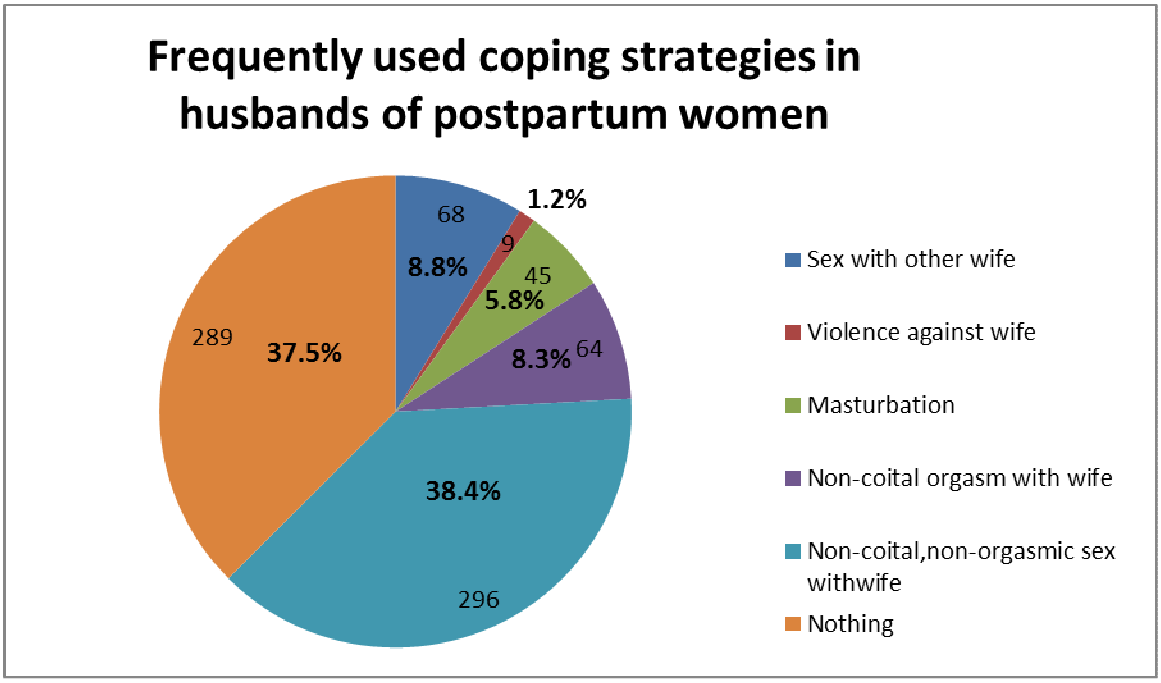

Figure 1. Strategies for coping with postpartum sexual abstinence in husbands of postpartum women in Ikenne

History of occurrence of high risk sex was volunteered by 82 respondents, giving a prevalence of 10.6% as depicted in table 5. This table also shows that progressively longer durations of coital abstinence correlated with increasing prevalence of high risk sex (*P*<.001). A sharp increase was noted after 1 year with change in prevalence from 8.1% (6 weeks to < 1 year) to 19.6% after 1 year of abstinence. The mean duration of coital abstinence was also found to be significantly longer in participants who engaged in high risk sex (11.01±6.99 months), compared with those who did not (7.21±5.92 months) *P*-value <.001.

Greater proportion of men who had previous extramarital sex (77.1%), were involved in high risk sex compared with 7.5% who had no prior extramarital sexual relations (*P* <.001). Also with an odds ratio

UNDER PEER REVIEW

OR=41.70, *P*<.001, and 95%CI=18.07-96.07), husbands who had previous extramarital sex were more likely to engage in high risk sex during their wife's postpartum period. Men who knew their HIV status were also found to be more likely to engage in high risk sex at this time (*P*=.03 and OR=1.71). Other factors such as age (p=.93), educational level (*P*=.74), religion (*P*=.44), ethnicity (*P*=.91), settlement (*P*=.81), occupation (*P*=.44), cohabitation with postpartum spouse (*P*=.64) and duration of breastfeeding (*P*=.47) were not significantly different between participants who engaged in high risk sex and those who did not (Table 5).

Table 5. Determinants of High Risk Sex in husbands of postpartum women

	High Risk Sex			
Factor	Yes	No	**Total**	***P*-value (95%CI)**
	n=82(10.6%)	n=689(89.4%)	771	
Age (mean ± SD in years)	36.91±7.17	36.84±7.00	36.85±7.01	.93(-1.54-1.68)
Educational level				
Primary	16(12.5%)	112(87.5%)	128	.74(0.73-0.74)
Secondary	50(10.4%)	430(89.6%)	480	
Tertiary	16(9.8%)	147(90.2%)	163	
Religion				
Christianity	71(11.1%)	569(88.9%)	640	.44
Islam	11(8.4%)	120(91.6%)	131	
Ethnicity				
Hausa	8(11.3%)	63(88.7%)	71	.91(0.89-0.91)
Igbo	7(8.9%)	72(91.1%)	79	
Yoruba	67(10.8)	554(89.2)	621	
Settlement				
Rural	34(11.0%)	274(89.0%)	308	.81
Urban	48(10.4%)	415(89.6%)	463	
Occupation				
Unemployed	1(5.3%)	18(94.7%)	19	.44(0.43-0.45)
Unskilled	21(12.5%)	147(87.5%)	168	
Skilled	51(11.1%)	409(88.9%)	460	

UNDER PEER REVIEW

Professional	9(8.0%)	115(92.0%)	124	
Marriage setting				
Monogamous	75(10.6%)	630(89.4%)	705	.60
Polygamous	7(10.6%)	59(89.4%)	66	
Cohabit with wife				
Yes	78(11.0%)	630(89.0%)	708	.64
No	7(10.6%)	59(89.4%)	66	
Prior extramarital Sex				<.001
Yes	27(77.1%)	8(22.9%)	35	OR=41.70(18.07-96.07)
No	55(7.5%)	679(92.5%)	734	
Awareness of own HIV Status				.03
Yes	55(12.8%)	375(87.2%)	430	OR=1.71(1.05-2.77)
No	27(7.9%)	314(92.1%)	341	
Duration of breastfeeding				
Mean(months)	17.43±3.43	17.72±3.53	17.69±3.52	.47(-1.10-0.51)
Duration of coital abstinence				
< 6 weeks	3(4.8%)	60(95.2%)	63	<.001
6 weeks -<1 year	42(8.1%)	477(91.9%)	519	
1-< 3 years	37(19.6%)	152(80.4%)	189	
Mean duration of coital				
Abstinence (months)	11.01±6.99	7.21±5.92		<.001

OR=Odds Ratio

Table 6 reveals that high risk sex occurred in similar proportions in both rural and urban settlements (*P*=.77). An 'old friend' was the commonest high risk sexual partner 54/82 (65.8%) in the study population. Most 64/82 (78.0%) of the respondents, used condoms occasionally during HRS. Only 5/82 (6.1%) used a condom at every HRS act, 13/82(15.9%) never used a condom. The mean interval between delivery and first high risk sex episode for the study population was 4.26±3.10 months, thus a sizable proportion of participants had engaged in high risk sex before the 5th postpartum month, while abstaining from their wives (population mean duration of coital abstinence=11.01±6.99). Occurrence of STI was reported by 3/82 of the respondents who engaged in high risk sex, giving a prevalence of 3.7%, whereas only 16 responses were received for sex with persons suspected to be infected with an STI.

UNDER PEER REVIEW

Table 6. Patterns of high risk sex (HRS) in husbands of postpartum women, across the Ikenne settlements

Pattern	Settlement		Total (n=82)	*P*-value(95%CI)
	Rural (n=34)	Urban (n=48)		
Type of partner				
Old friend	25(46.3%)	29(53.7%)	54	.32(0.31-0.32)
New friend	8(36.4%)	14(63.6%)	22	
Commercial sex worker	1(16.7%)	5(83.3%)	6	
Sex with infected person(STI)				
Yes	1(25.0%)	3(75.0%)	4	.75
No	3(25.0%)	9(75.0%)	12	
Condom use for HRS				
Never	6(41.2%)	7(53.8%)	13	.92(0.91-0.92)
Occasional	26(40.6%)	38(59.4%)	64	
Always	2(40.0%)	3(60.0%)	5	
Occurrence of STI after HRS				
Yes	1(33.3%)	2(66.7%)	3	.63
No	33(41.7%)	46(58.3%)	79	
Delivery-HRS interval				
Mean(months)	4.29±3.30	4.23±2.99	4.26±3.10	.93(-1.32-1.45)
Previous extramarital sex				
Yes	10(37.0%)	17(63.0%)	27	.57
No	24(43.6%)	31(56.4%)	55	

3.2. DISCUSSION

The mean duration of 7.62±6.16 months of postpartum sexual abstinence, observed is much longer than the 8.2±2.9 weeks (or 2.1±0.71 months) reported in a hospital based study in Jos, North eastern Nigeria among women who were 14 weeks (or less) postpartum.[13] More (8.2%) of the couples in Ikenne LGA than the reported 3.5% couples in Jos had however resumed sexual intercourse before the end of the puerperium.[13] A significantly longer duration was found in this study among husbands who are rural

UNDER PEER REVIEW

dwellers compared to urban men, with a relatively greater proportion of rural men abstaining for periods of 12 months and longer, compared to urban men. This finding contrasts reports from a study conducted in Ghana, where no significant difference in sexual behavior existed in husbands of postpartum women between these two settlement types. [20]

Although rural dwellers had longer durations of abstinence, no difference was observed from urban dwellers in the occurrence of high risk male sexual behavior. This finding is inconsonance with a report from a study in Ibadan, South western Nigeria.[4]

The results from this study agree with findings of a study in Jos where socio-demographic and obstetric factors, were not predictive of the duration of coital abstinence.[13] It however contrasts what was reported, from a study involving data from 17 countries, (most of them in Africa), where obstetric factors were found to positively affect this duration.[21] It is an established belief among the Yoruba of Nigeria that sexual intercourse during breastfeeding should be forbidden because it may poison the milk, with several couples readily abstaining for durations spanning most of or even the entire length of the breastfeeding period, which may be as long as 3 years.[1,2,22] The duration of breastfeeding observed among the respondents is however much longer than the duration of coital abstinence. These lower durations observed, may be due to changes in sexual practices and breastfeeding patterns among couples during the postpartum period, responsible for the lower mean duration than the 2-3 years traditionally prescribed.[1,22] In fact no couple in Ikenne LGA, had breastfeeding duration lasting up to 3 years. These changes maybe predicated upon changing lifestyles following, increasing adoption of monogamous marriages, better skilled, non-agricultural occupations with increasing number of 'working class' postpartum wives and less dependence on extended family networks who provided support and monitoring in traditional abstinence settings as found in an earlier report.[20]

Non-coital, non-orgasmic sex with the postpartum wife was the commonest alternative to coital sexual intercourse practiced by the participants. This appears 'un-African' as it is dissimilar from the commonly reported traditional coping mechanisms of 'sex with a another existing wife' (polygamy), sex with other acquaintances married into the family setting or sex with a commercial sex worker as reported in earlier studies.[4,6] These coping methods observed were however similar in respondents from both rural and urban settings. A lower prevalence of intimate partner violence (against the postpartum wife) was observed in this study, compared to the 4-29% reported in a multi-country survey of intimate partner violence related to pregnancy in some other developing countries.[23] Pregnancy and lactation have been shown to be major factors in the occurrence of violence against women. [24, 25]

The prevalence of high risk sex observed in the Ikenne population is much lower than 48% observed in Ibadan from a study on male sexual networking during wife's postpartum period.[26] It is also less than prevalence of 42.1% observed in that same study among husbands of pregnant women. Occurrence of high risk sex in Ikenne LGA, had a direct relationship with increasing duration of coital abstinence, in fact the prevalence more than doubled after 1 year of abstinence. Participants who engaged in high risk sex were noted to have significantly longer durations of abstinence than those who did not. The finding that the delivery-to-first high risk sexual act interval is much shorter than the duration of coital abstinence suggests that these men had started having extramarital sex earlier as an alternative to cope with the period of abstinence from sex from their own wives.

Previous extramarital sexual relations (within index marriage) was observed to be a significant determinant of high risk male sexual behavior as significantly more of these men were more likely to engage in it (OR = 41.7). This fact is also buttressed by the finding that an 'old friend' was the commonest sex partner. This finding is also in line with an earlier report that the avenues for postpartum men during abstinence were mostly people known to or close to them such as women married into his family lineage; especially young wives in polygamous marriages, single girls from poor families who had not been betrothed, widows and divorced women.[6]

Similarly, Knowledge of HIV status had a significant influence on occurrence of unsafe sex, as men who knew their status were more likely to engage in it. A positive HIV test rate of 2.3% was found among men involved in high risk sex in Ibadan, the investigators in that study however noted that none of these men

UNDER PEER REVIEW

were aware of their status, reasons given for this was that HIV testing at that time was very low. [26] Testing for HIV now is quite widespread, thus it is pertinent to know which test result actually influenced high risk sexual behavior during the postpartum period. Further studies among Nigerians with combined HIV testing would be useful in this regard.

Consistent condom use during high risk sexual acts observed in this population was low. The level of consistent condom use among rural men engaging in unsafe sex in Ikenne of 5.8% was however higher than the 1.7% reported in rural Ibadan.26 These rates of condom use are lower than expected as condom use in Africa has been described as 'a marker for high risk sex'.[18] Consistent use of the male condom has been shown to produce up to 80% reduction in HIV incidence.[27] The association between male sexual networking and transmission of STIs including HIV has been well established.[6] Although history of sex with a person infected with STI was obtained in 25.0% of the interviewees who engaged in HRS, history of occurrence of STI was volunteered by only 3.7% of these participants. This is in far contrast to the 23.7% of STI occurrence reported by men who participated in a study on male sexual networking in Ibadan; [26] that study however combined data of sexual networking during and outside their wives' pregnancies, which may account for higher rates observed. The inability of the study to determine which particular HIV status influenced the occurrence of high risk sexual behavior in the participants, in this would necessitate further prospective study involving laboratory HIV testing.

4. CONCLUSION

The mean duration of postpartum coital abstinence in Ikenne LGA is less than culturally prescribed, showing a decreasing trend; rural men however still have comparatively longer abstinence periods. High risk male sex was a consequence of prolonged postpartum sexual abstinence and previous extramarital sexual exposure significantly increased the risk of this behaviour. High risk sex predisposed to occurrence of STIs in husbands of postpartum women as reported consistent condom use was very low while significant occurrence of STIs was noted.

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UNDER PEER REVIEW

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