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Postpartum Sexual Abstinence and its Implications for Under-Five Health Outcome among Childbearing Women in South-east Nigeria

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Abstract

Abstinence from sexual intercourse after childbirth is a common practice deeply rooted in the cultures of different communities, including Nigeria with varying duration. Despite the high level of postpartum abstinence in the South-east compared to other neighbouring regions of Nigeria, under-five mortality is relatively higher in the South-east. This paper examined postpartum sexual abstinence as a predictive factor for under-five health outcome in Abia State with data from a sample of 609 childbearing women within 15-49 years. The mean duration of postpartum abstinence was 3.1±1.5 months; shorter in rural than urban areas with 2.7±1.4 and 3.5±1.3 months, respectively. The months of abstinence from sexual activity after childbirth is significantly related to experiences of under-five mortality and childhood diseases ($p<0.05$). The qualitative data showed that period of abstinence from sexual activity after childbirth is rooted in culture and was alluded to have great influence on under-five health outcomes. It is concluded that most women resumed sexual activity early after childbirth mostly to secure their marriages which affect their under-five children's health. Proper guidelines on resumption of sexual activity after childbirth to avoid its negative effects on under-five health outcome should be instituted to facilitate the achievement of sustainable development. *(Afr J Reprod Health 2018; 22[4]: 102-112).*

Keywords: Sexual behaviour, reproductive health, cultural practices, health consequences

Résumé

L'abstinence des relations sexuelles après l'accouchement est une pratique courante profondément enracinée dans les cultures de différentes communautés, y compris le Nigéria, et pour des durées variables. En dépit du niveau élevé d'abstinence post-partum dans le sud-est par rapport aux autres régions voisines du Nigéria, la mortalité des moins de cinq ans est relativement plus élevée dans le sud-est. A partir des données d'un échantillon de 609 femmes en âge de procréer âgées de 15 à 49 ans, ce document examine l'abstinence sexuelle postnatale en tant que facteur prédictif de l'évolution de l'état de santé des enfants de moins de cinq ans dans l'État d'Abia. La durée moyenne de l'abstinence post-partum était de 3,1 ± 1,5 mois; plus courtes dans les milieux ruraux que dans les milieux urbains avec 2,7 ± 1,4 et 3,5 ± 1,3 mois, respectivement. Les mois d'abstinence sexuelle après l'accouchement sont significativement liés aux expériences de mortalité des moins de cinq ans et de maladies infantiles ($p <0,05$). Les données qualitatives ont montré que la période d'abstinence sexuelle après l'accouchement est enracinée dans la culture et qu'elle aurait une grande influence sur les résultats de santé des enfants de moins de cinq ans. On en conclut que la plupart des femmes ont repris leurs activités sexuelles tôt après l'accouchement, principalement pour sécuriser leurs mariages qui affectent la santé de leurs enfants de moins de cinq ans. Des directives appropriées sur la reprise de l'activité sexuelle après l'accouchement afin d'éviter ses effets négatifs sur les résultats pour la santé des enfants de moins de cinq ans, devraient être mises en place pour faciliter la réalisation du développement durable. *(Afr J Reprod Health 2018; 22[4]: 102-112).*

Mots-clés: Comportement sexuel, santé reproductive, pratiques culturelles, conséquences sur la santé

Introduction

Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth and is mainly a period when a nursing and breastfeeding mother is expected to keep away from the husband sexually[1]. In the cultures of the South-east, South-south and South-west Nigeria, it is a taboo to engage in sexual intercourse with a woman who has just given birth[2]. During this period, the body of the woman is said to be "wet" and needs to settle down properly and dry up. Also, it is believed that seminal fluid or ejaculate of the man would go directly into the breast milk which is considered injurious to the infant[3], while the woman herself is said to be well predisposed to infection through infected men[4]. It has been observed that abstinence from sexual intercourse after childbirth is a common practice that is deeply rooted in the cultures of different communities worldwide with varying duration and almost all women desire to delay or prevent their next pregnancy for two years[5]. It has been reported that within the first year after delivery, only 68% of women who could become pregnant are using a modern form of contraception[6]. Postpartum period is especially critical for newborns and mothers as most deaths of mothers and babies occur within this period[7-8]. It is an ideal time to deliver interventions that improve the health and survival of both the newborn and mother. There are evidences that young and postpartum women who desire more children have expressed worries about contraceptive side-effects, infertility, thus reinforcing the burden of misinformation and misperceptions[5,9-12].

African women tend to follow established community norms and traditions in making decisions that influence resumption of sexual intercourse after giving birth[13]. Early initiation of sexual intercourse was observed in women who had spontaneous vaginal delivery and in those who stayed at home with their mothers, then in-laws and aunts[14]. Mothers who earned more money had early resumption of sexual intercourse during their postpartum period compared to those who earned less money[15-16]. In addition, it has been revealed that age of the child and parity are associated with early resumption of sexual intercourse as postpartum women with few children resume sexual intercourse earlier than women who had many children[17-18].

Globally, every day more than 26,000 children under the age of five die around the world; and nearly all of them, live in developing countries[19]. More than one-third of these children die during the first month of life, usually at home and without basic attention that might save their lives. In Nigeria, the infant mortality rate was 69 per 1,000 live births for the five years preceding the 2013 NDHS, the child mortality rate was 64 per 1,000 children surviving to age 12 months, and under-5 mortality rate was 128 per 1,000 live births [1]. This implies that one in 15 Nigerian children die within 12 months and one in eight die before their fifth birthday. In spite of the high level of postpartum abstinence in the South-east (4.6) compared to South-west (3.8) and South-south (3.7) of Nigeria, under-5 mortality is relatively higher in the South-east with 131 per 1000 live births, which includes Abia State, compared to South-south with 91 per 1000 live births and South-west with 90 per 1000 live births[1]. This is far above the Sustainable Development Goals (SDGs) targets of 25 under-five deaths per 1,000 live births by 2030.

Understanding the mothers' sexual behaviour that is inimical to child survival can be very helpful in reducing under-five mortality in Nigeria. It is evident from the above reviewed studies that adequate social research attention has not been given to the issues of postpartum sexual abstinence which plays a vital role in a child's health outcome in the South-eastern Nigeria. It is against this background that this study explores postpartum sexual abstinence among childbearing women as a predictor of under-five children health outcome in Abia State.

The Mosley and Chen's analytical framework and the socio-ecological models were adopted to explain infant nutrition and health outcome of under-five children. Mosley and Chen

observed that the chances for child survival are influenced by several variables which include maternal socioeconomic factors through demographic variable like methods of breastfeeding[20]. On the other hand, socio-ecological model provides a set of conceptual and methodological principles, drawn largely from systems theory[21]. The model is unique in the study of mortality because it takes into account the physical environment and its relationship to people at intrapersonal, interpersonal, organizational, community, and public policy levels that help individuals make health choices in their daily lives. The main focus of the socio-ecological model is not on the individuals who are making specific health-significant decisions, but how to promote healthy behaviours.

Methods

Study sample and selection process

The study utilized an exploratory design involving social survey with a sample size of 609 women of childbearing age 15 – 49 years, who had given birth to at least one child in the last five years that preceded the study. The sample size was calculated using Cochran's statistical formula for calculating minimum sample proportion. The minimum sample size needed to estimate the prevalence of under-five mortality to within 5% of the estimate of 157 per 1,000 (NPC and ICP Macro, 2009), at a 5% level of significance was derived using the formula below:

$$N = \frac{(Z\alpha)^2 \times pq}{d^2}$$ where

N = Minimum sample

Zα = Standard score: 1.96 (Assuming a level of error of 5%)

p = Prevalence of outcome measure: 0.157 (under-five mortality)

q = 1-p = 1-0.157 = 0.843

d = Absolute deviation: 5% = 0.05 (this mean that the estimate for under-five mortality is within 5% from the assumed true rate); assuming a prevalence rate of 50%

$$N = \frac{203 \times 100}{50}$$ N = 406.

The sample size for the study was increased by 50% (N= 609) to allow for statistical analysis of different variables and direct estimation of mortality in the study area. A multi-stage sampling technique was adopted in selecting the sample size drawn from the three Senatorial Districts of Abia State, Nigeria (Abia North, Abia Central and Abia South). The respondents were selected using the simple random selection of two Local Government Areas (LGAs) each from the three Senatorial Districts. There was a simple random sampling of six roads/streets each from the urban centres and three communities each from the rural areas, using the lists provided from each of the LGAs. The final stage of the procedure was the purposive selection, from a selected building, of a woman who had given birth to at least one child in the last five years that preceded the study.

Data collection and analyses

This study adopted mixed methods of both quantitative and qualitative methods. The quantitative methods were employed by using structure questionnaire and qualitative methods were utilized using documentary sources, in-depth interviews and focus group discussions. The in-depth interviews (IDIs) was conducted with 20 participants while focus group discussions (FGDs) as conducted with 6 groups, comprising of 8 participants in each group. The significance of using mixed methods in this study was to understand holistically and provide more insights on the relationship between postpartum abstinence among childbearing women and under-five health outcomes in sampling community areas of Abia state, Nigeria. Conversely, the quantitative data were analysed at univariate and bivariate levels of statistical analysis method using Statistical Package for Social Sciences (SPSS) version 21.0. Univariate statistical methods used were mean, frequencies and percentages while bivariate analysis includes chi-square and correlation methods. Moreover, the qualitative data (FGDs and IDIs) collected were thematic manual content analysed in line with the objectives of this study. The qualitative data from FGDs and IDIs were

sorted and codified with the major themes as well as the use of verbatim quotation. Also, some of the interview data were collected in Ibo language, transcribed and translated into English language with the aim to discuss holistically the generated results from the interview data in comparison with quantitative data.

Results

Socio-demographic Characteristics of the Respondents by Residence

The socio-demographic characteristics of the respondents as displayed in Table 1 showed that the mean age of the respondents was 32.6±5.8 years with little variation by place of residence. This is an indication that most women in the sample were in the prime child bearing age. The majority of the respondents (84.6%) were married and living together with their spouses. Data on educational attainment revealed that the largest proportion of the respondents (55.0%) had secondary education followed by 29.9% with tertiary education with significant variation between urban and rural residents. Generally, the largest proportion the women (42.7%) were found in paid/civil service jobs. More rural respondents (25.9%) were unemployed compared to 10.2% of their urban counterparts. Only 5.4% of the respondents engaged in farming. In all, a good number of the respondents belonged to the middle income level, while rural dwellers belonged to the lowest compared to their urban counterparts who were found in the highest income level. The disparity in the mean monthly income of the respondents in the areas is expected as a result of the gap in educational attainment and occupation of rural and urban respondents.

Respondents' postpartum abstinence and previous under-five health experience

Table 2 shows postpartum abstinence and previous under-five health experience of the respondents. The respondents' mean duration of postpartum abstinence was 3.1±1.5 months; shorter in rural areas (2.7±1.4 months) than urban areas (3.5±1.3 months). The majority of the respondents (63.9%) reported to have abstained from sexual intercourse after child birth before the sixth month. It was revealed that rural dwellers were 22.5% more likely than urban residents to abstain from sexual activity before the sixth month after their delivery. The period of time a woman stays away from her husband sexually after childbirth might depend on the nature of her job and the understanding between the couples. This is supported by the submissions made by rural respondents during in-depth interviews, thus: -

> *....it is our culture to abstain from sexual activity after childbirth for a period of time. Once I consider myself clean and strong, I have sex with my husband within the first two months of childbirth. Besides, I am not working for now and if l should say no to my husband's sexual overture, he might suspect me. So the understanding between the couple is important in this situation* (Rural IDI, respondent aged 24, Umuahia South LGA).

Another rural respondent reported:

> *.....in most cases, it becomes difficult as a woman to negotiate time to indulge in sexual activity with your partner when the woman does not do anything, but stays at home* (Rural IDI, respondent aged 32, Bende LGA).

The mean number of children born alive was 3.1±1.5 children. Over one-half of the women (51.5%) experienced infant mortality, with little differences between urban and rural areas. It was revealed that about 61% of the under-five recorded a particular childhood disease before the eventual death of the child. Data on the dead child's position is an indication that the complications and strange experiences related to first-two pregnancies could be contributory factor to childhood mortality. In line with the opinions that first pregnancy experience was excruciatingly painful and uncomfortable, some of the respondents put their opinions their way:

Table I: Socio-demographic characteristics by childbearing women in South East, Nigeria

	Residence		
Characteristics	**Rural**	**Urban**	**All Women (N = 609)**
Age Mean →	(32.4 years)	(32.6 years)	(32.6 years)
15-29	100(32.8%)	77(25.3%)	177(29.1%)
30-39	157(51.4%)	192(63.2%)	349(57.3%)
40+	48(15.7%)	35(11.5%)	83(13.6%)
Total	**305(100%)**	**304(100%)**	**609(100%)**
Marital Status			
Single	8(2.6%)	19(6.3%)	27(4.4%)
Married/Living together	269(88.2%)	246(80.9%)	515(84.6%)
Widowed/Separated/Divorced	28(9.2%)	39(12.8%)	68(11.0%)
Total	**305(100%)**	**304(100%)**	**609(100%)**
Education			
Primary and Less	30(9.8%)	13(4.3%)	43(7.0%)
Secondary	187(61.3%)	148(48.7%)	335(55.0%)
Tertiary	64(21.0%)	118(38.8%)	182(29.9%)
Others	24(7.8%)	25(8.2%)	49(8.0%)
Total	**305(100%)**	**304(100%)**	**609(100%)**
Occupation			
Unemployed	79(25.9%)	31(10.2%)	110(18.1%)
Paid/Civil Servant	104(34.1%)	156(51.3%)	260(42.7%)
Farming	29(9.5%)	4(1.3%)	33(5.4%)
Others	93(30.5%)	113(37.1%)	206(33.9%)
Total	**305(100%)**	**304(100%)**	**609(100%)**
Monthly Income (N) Mean →	**(N14,883)**	**(N32,802)**	**(N24,027)**
Lowest	144(75.8%)	92(46.5%)	236(60.9%)
Middle	32(16.9%)	62(31.3%)	94(24.2%)
Highest	14(7.4%)	44(22.2%)	58(15.0%)
Total	**190(100%)**	**198(100%)**	**388(100%)**

I resorted to personal remedies whenever I had strange development in my husband's absence during my first pregnancy. At a time, l was fed up with the pregnancy until l finally gave birth to the child, though he passed away after some months.....though I resumed sexual activity with my husband shortly after I gave birth to the baby (Urban FGD, respondent aged 27, Umuahia North LGA).

Another respondent posited that;

... it is not easy to be a woman. This was my comment the first time l was pregnant of my dead child. In fact, both my husband and I became confused at a point. I thank God for saving my life because it was totally as if l was in another realm during that period (Rural IDI, respondent aged 26, Umunnaochi LGA).

Distribution of respondents' postpartum abstinence by some selected demographic characteristics

Table 3 reveals that a little above three-quarters of rural respondents abstained from sexual activity after child birth between 1-5 months compared to 52.6% of those in urban centres. Urban women were 22.5% more likely to abstain from sexual activity between 6 months and above than rural women. The respondents interviewed alluded to the fact that occupation differentials were major factors that better explained limitation of women sexual activity after birth. Some excerpts to support this assertion by the respondents are: -

A nursing mother's abstinence from sexual activity with her partner is dependent on her occupation as well as the husband's

Table 2: Postpartum abstinence and previous childhood health experience of childbearing women in South East, Nigeria

	Place of Residence		All Women
Characteristics	**Rural**	**Urban**	**N=609**
Postpartum abstinence Mean →	**2.7**	**3.5**	**3.1**
< 2 months	50(16.4%)	9(3.0%)	59(9.7%)
2 – 3 months	149(48.9%)	88(28.9%)	237(38.9%)
4 – 5 months	30(9.8%)	63(20.7%)	93(15.3%)
6 +	76(24.9)	144(47.4%)	220(36.1%)
Total	305(100%)	304(100%)	609(100%)
Previous experience (U-5 death)			
Yes	181 (59.3%)	120(40.0%)	301(49.8%)
No	124(40.7%)	180(60.0%)	304(50.2%)
Total	305(100%)	300(100%)	605(100%)
Sex of the dead child			
Male	101(55.8%)	68(56.7%)	169(56.1%)
Female	80(44.2%)	52(43.3%)	132(43.9%)
Total	181(100%)	120(100%)	301(100%)
Age at which child died			
Mean →	**2.0**	**2.2**	**2.1**
Less than 1 year	95(52.5%)	60(50.0%)	155(51.5%)
1 – 5 years	86(47.5%)	60(50.0%)	146(48.5%)
Total	181(100%)	120(100%)	301(100%)
The dead child's position			
Mean →	**2.2**	**1.9**	**2.1**
1 – 2	125(69.1%)	100(83.3%)	225(74.8%)
3 – 4	46(25.4%)	16(13.3%)	62(20.6%)
5 +	10(5.5%)	4(3.3%)	14(4.7%)
Total	181(100)	120(100)	301(100%)
Experience of Child Disease			
Yes	144(63.0)	68(56.7)	182(60.5)
No	67(37.0)	52(43.3)	119(39.5)
Total	181(100)	120(100)	301(100)
Name of Disease			
Measles	24(21.1)	24(35.3)	48(26.4)
Tetanus	18(15.8)	4(5.9)	22(12.1)
Fever	56(49.1)	44(64.7)	100(54.9)
Diarrhoea	36(31.6)	1623.5)	52(28.6)
Pertussis (Whooping cough)	12(10.5)	4(5.9)	16(8.8)
Others	18(15.8)	4(5.9)	22(12.1)

understanding. And talking about contraceptive usage, it is unacceptable to me because it could result infertility in some cases (Urban IDI, respondent aged 47, Aba North LGA).

A rural respondent said:

...occupation of the nursing mother contributes a lot because when she is always around at home, there are possibilities of drawing the husband's attention and she may not be able to run away from it. You should understand what I mean (Rural IDI, respondent aged 31, Umuahia South LGA).

Mother's age and monthly income are significantly related to months of abstinence from sexual activity after a birth ($p<0.05$). Expectedly, the majority of the respondents (about 55% and 53%) who were widowed/separated/divorced and single respectively reported abstaining from sexual activity with their partners after birth between 6 months and above. It was revealed that the respondent's level of education tends to influence

Table 3: Postpartum abstinence by some selected demographic characteristics of childbearing women in South East, Nigeria

Variables/ Categories	Less than 6 months	6 – 9 months	10 +	Total	(P-value) χ^2
Residence					
Rural	75.1	19.7	5.2	100	(0.000)
Urban	52.6	41.4	6.0	100	80.7
Age					
Less than 25 years	46.7	40.0	13.3	100	(0.000)
25 – 34 years	58.2	35.0	6.8	100	157.5
35 +	76.1	21.6	2.3	100	
Marital Status					
Single	47.1	18.5	34.4	100	(0.000)
Married/Living together	61.2	28.7	4.1	100	78.5
Widowed/Separated/Divorced	44.8	49.3	5.9	100	
Education					
Primary and Less	69.8	30.2	-	100	(0.000)
Secondary	75.8	17.6	6.6	100	155.2
Tertiary	40.1	55.5	4.4	100	
Others	65.3	26.5	8.2	100	
Religion					
Catholic	52.4	41.3	6.3	100	(0.000)
Protestant	71.1	26.4	2.5	100	124.3
New Generational Churches	65.5	27.7	6.8	100	
Occupation					
Unemployed	65.5	34.5	-	100	
Paid/Civil servant	56.2	40.8	3.0	100	(0.000)
Farming	75.8	12.1	12.1	100	141.7
Petty Trading	66.7	20.6	12.7	100	
Others	80.0	10.0	10.0	100	
Monthly Income (N)					
Lowest	76.0	16.7	7.3	100	(0.000)
Middle	69.1	22.7	8.2	100	245.5
Highest	36.2	62.1	1.7	100	

Significant at $p < 0.05$

her sexual activity after birth. The reasons for the disparity by level of education could be a function of some reasons ranging from couples' living arrangement to presence of family members from FGDs and IDI. For instance, excerpts from rural and urban respondents read thus: -

> *.... whenever the woman in question considers herself to be clean and strong, she can indulge in sexual activity with her partner. We stay together almost all the time since his shop is in front of our compound and I have nothing doing as a result of my level of education. I think the reverse would have been the case if he had his shop far away from the house and I am employed* (Rural IDI, respondent aged 35, Bende LGA).

Another informant claimed that;

> *I take quality time to recuperate before indulging in sexual activity with my husband after childbirth. Although, my mother comes around to take care of me and my baby anytime I put to bed because my husband lives in a neighbouring state as a result of the nature of his job. Although, I have read so many books on life of a woman after childbirth, even when I was still an undergraduate* (Urban FGD, respondent aged 41, Aba South LGA).

Table 4: Postpartum abstinence by some selected previous under-five health experience of childbearing women in South East, Nigeria

Variables/ Categories	Less than 6 months	6 – 9 months	10 +	Total	P-value (X^2)
Previous experience (U-5 death)					
Yes	57.9	33.6	8.6	100.0	0.012
No	67.7	29.4	2.8	100.0	(14.6)
Sex of the dead child					
Male	71.6	23.7	4.7	100.0	0.028
Female	66.6	33.4	-	100.0	(12.5)
Age at which child died					
Less than 1 year	69.0	25.8	5.2	100.0	
1 year	85.0	15.0	-	100.0	0.000
2 years	73.9	26.1	-	100.0	103.5
3 years	55.0	45.0	-	100.0	
4 years	60.0	40.0	-	100.0	
Experience of Child Disease					
Yes	78.1	22.0	-	100.0	0.000
No	56.3	36.9	6.7	100.0	47.3
Significant at $p < 0.05$					

Distribution of respondents' postpartum abstinence by some selected previous under-five health experience

The results in Table 4 revealed significant relationships between under-five mortality experience, sex of the said child, age at child's death, experience of child disease and postpartum abstinence. The large proportion of the respondents (67.7%) and (78.1%) who reported to have experienced under-five mortality and childhood diseases, respectively abstained from sexual intercourse within 5 months. In all, the period of abstinence from sexual intercourse after child birth amongst respondents whose babies had child diseases could be pointed out as a contributory factor to under-five mortality experience as revealed in the qualitative findings. Some participants interviewed alluded to the fact that childhood diseases might be as a result of short postpartum sexual abstinence which is opposed by the stipulation of their culture could culminate into under-five mortality experience. Some excerpts to support this assertion by the respondents are: -

> *Yes, I resumed sexual activity with my partner before the sixth week without using any contraceptive and do not think that was responsible for my baby's death. The problem is that some health care workers are not specific on the period of time to abstain from sexual activity after child birth. Though, some cultures stipulate different periods to abstain from sexual activity after childbirth* (Rural IDI, respondent aged 38, Umunnaochi LGA).

Another rural respondent said:

> *When my baby of 2 months was sick, I was asked by an elderly woman who was my neighbour to desist from sexual activity if I was indulging in it since I was still breastfeeding. I was meant to understand the need to always stay away from sexual activities with my husband until after 6 months to avoid affecting my breastfeeding baby. Surprisingly, the baby became completely healed after I put into practice such an advice* (Rural IDI, respondent aged 40, Bende LGA).

Discussion

The study revealed that most of the respondents were in the prime child bearing age with 32.6±5.8 years. The incidence of childhood disease before

the eventual death of the child was high in the study area. Our results indicated that rural women were more likely to indulge in sexual activity earlier than their counterparts in urban areas. Plausible explanation for the differentials in postpartum experiences among nursing mothers by place of residence is living arrangement and the relatively higher job stress among urban residents. In urban areas couples may, due to better accommodation, choose to sleep in different rooms unlike in rural areas. Again, couples might spend longer hours at work and be tired on return. The above findings were also supported by the qualitative results that the period of time a woman stays away from sexual activity with her husband after childbirth is dependent on the nature of her job and the understanding between the couples. This validates observations that there is a significant relationship between occupation of the mother and timing of resumption of sexual intercourse[13-14].

Our analyses found that mother's age, education and marital status tend to influence her sexual activity after child birth as was also alluded by the qualitative results. Considering age, the result could be attributed to the fact that young childbearing married women with few children tend to resume sexual activity early. This is in line with the observations of previous studies that postpartum women with few children resume sexual intercourse earlier than women who have had many children[14-15]. Our findings revealed that women who are married or living together with their partners tend to indulge in sexual activity within the first six months after childbirth compared to their counterparts in other categories. This further suggests that this category of women who are married or living together with their partners might likely have grown too familiar with their partners and could find it difficult to resist their partners' sexual overtures. On the other hand, women in the other categories might still be in romantic relationships, with the absence of a husband predisposing them to short sexual abstinence.

It is evident from the findings on monthly income and postpartum abstinence that respondents' monthly income is inversely related to postpartum abstinence. Hence, women's sexual activity after childbirth decreases with increasing monthly income as they tend to be autonomous and have effective sexual bargaining power with their partners. This is not consistent with previous studies which observed that mothers who earned more money had early resumption of sexual intercourse during their postpartum period compared to those who earned less money[15-16].

There are significant relationships between under-five mortality experience, sex of the said child, age at child's death, experience of childhood disease and postpartum abstinence. The results on under-five mortality and experience of childhood diseases are in line with observation that postpartum period is especially critical for newborns and mothers as most deaths of mothers and babies occur within this period[7-8]. In all, the qualitative results showed that postpartum sexual abstinence is inherent in peoples' cultures and women tend to respect their partners' sexual overture irrespective of the period after childbirth as well as fear of side effects of contraception. In line with the respondents' age and postpartum abstinence, the result validates a lot of studies that young and postpartum women who were not finished with their childbearing described worries about fear of contraceptive side effects, especially those contraceptives that would cause infertility[5,9-12].

Consequently, our analysis revealed that women who reported a shorter period of abstinence from sexual activity after childbirths and experienced any of the childhood diseases could be a pointer to under-five health outcome. Also, it is revealed that the medical stipulation to resume sexual activity after six weeks of vaginal birth contradicts cultural values which might state otherwise as reflective of the qualitative data. It further suggests a higher value placement of cultural values about postpartum abstinence over medical recommendations, which allows for

sexual activity after 6 weeks of delivery for women with no complication[5].

Ethical consideration

Ethical approval was obtained from the Review Committee of the Federal Medical Centre (FMC), Umuahia, capital city of Abia State. The data collection was guided with the social science research ethics: confidentiality, voluntariness, beneficence, non-malfeasance and translation to protocol language. All the respondents and participants who were recruited in both quantitative and qualitative data collection were given informed consent forms prior to the survey to consent or decline to participate in the data collection. In this study, none of the respondents or participants suffered any form of physical or emotional harm as a result of their participation in the survey. Data were encrypted and stored in computer with password to protect the anonymity of respondents and participants' information.

Conclusion

In conclusion, the study revealed that incidence of childhood diseases which culminates into under-five mortality is influenced by early resumption of sexual activity after child birth. The behaviour of early resumption of sexual activity after childbirth by women as opposed by the culture was mostly as a result of the fear of jeopardizing their marriages and is inversely related to child health. The period of time a woman stays away from sexual intercourse with her husband after a child birth is dependent on the nature of her job and the understanding between the couples. Information generated from this study could guide service providers and policy makers to improve on the information given to childbearing women during antenatal care and after childbirth regarding postpartum resumption of sexual intercourse and children's health outcome. To achieve sustainable development, it is imperative that Nigerian Health Policy recognizes the need to reduce the current high infant and childhood morbidity and mortality rates; there is the need to adequately integrate childbearing women postpartum abstinence after childbirths into the health intervention programmes with consideration to varying cultural practices.

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Contributions of Authors

ICK conceptualised and designed the study. ICK led the data collection, data analysis, interpretation of findings and writing of the manuscript. OE, UV and MC participated in the collection of data, data analysis, interpretation of findings, and revision of the manuscript. All the authors read and approved the final version of the manuscript.

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