ASSOCIATION BETWEEN MOTHERS EXPERIENCE OF INTIMATE PARTNER VIOLENCE AND UNDER-FIVE MORBIDITY IN NIGERIA

ABSTRACT

Background

Recent studies suggest that there is an association between intimate partner violence and child morbidity/ mortality, though the underlying mechanisms are still unknown. The aim of this study was to explore whether an association exists between intimate partner violence (IPV) and illness in childhood.

Methods

The study was a secondary data analysis of the 2008 NDHS, conducted from June to October, 2008, involving use of a stratified, 2-stage cluster sampling technique to select 21,160 women with at least one child ≤ 5 years old. Main exposure was experience of past-year IPV prior to survey. Outcome measured were risk of fever, acute respiratory infection (ARI) and diarrhoea within the past 2 weeks, determined based on maternal experiences of IPV within the past year via analyses adjusted for socio demographics and environment.

Result

The mean age of the women was 29±6.8 years, while the mean age of the children was 27±17.1 months. Many of the women (51.0%) were between the ages of 25 and 34 years. Majority (28.3%) were from the North Western part of the country, more than half were Muslims (56.4%) and about three-quarter (72.2%) reside in rural areas. More than two-third (62.5%) of respondents were not working, while about half (49.7%) of them belonged to the poor wealth index category. About half of them (49.3%) had no formal education.

A higher proportion of the children (61.9%) were more than 24 months of age. More than half (56.6%) had never had vaccination. Few of the children had experienced fever, cough and diarrhoea in the past two weeks; 13.6%, 9.1% and10.3% respectively. Prevalence of past-year IPV was 72.6%. Prevalence of physical IPV was 21.6%, sexual IPV: 9.2%, emotional IPV: 7.8% and controlling behaviours: 66%.Main predictors of under-five morbidity were sexual and physical IPV experience of mothers (AOR: 1.632; CI: 1.419-1.879) and (AOR: 1.17; CI: 1.02-1.36) respectively. Maternal occupation, parity, vaccination and breastfeeding status were retained as important predictors of under-five morbidity when exposed to IPV in multivariate analysis ($p<0.05$).

Conclusion:

Interventions aimed at improving child morbidity status should target protection of mothers from physical and sexual violence perpetration by their partners.

Keywords: Intimate Partner Violence, Under-five morbidity and mortality, Association, Nigeria Demographic Health Survey (NDHS).

INTRODUCTION

Under-five morbidity and mortality is a great public health problem and has deleterious effect on the health of children globally (UNICEF, 2012). Despite the decline in child morbidity and mortality rates globally, the under-five mortality rate is still high in most African countries (Black, 2003). Although the causes of mortality

of children in Africa have been identified (UNICEF, 2012), and there has been a substantial improvement in health status in the last decade, Africa still remains a continent with high prevalence of under-5 mortality. Nigeria in particular has a high under-five mortality rate which is estimated to be 143 per 1000 live births (UNICEF, 2010). The effect of social determinants of health on this high mortality rate remains under studied in Africa. Intimate partner violence (IPV) is assumed to be one of these social determinants which adversely affect the capacity of the mother to care for the child (Osuorah et al., 2012).

Violence against women (VAW) is ‘’any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life (WHO, 2012). Violence against women - particularly intimate partner violence is a major public health problem and a violation of women's human right (WHO, 2012). Intimate partner violence (IPV) refers to behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, and psychological abuse and controlling behaviours (WHO, 2012). Research has shown that a large proportion of women globally endure IPV, which is a recognized public health priority (WHO, 2002). IPV constitutes 80-90% of the experience of VAW. Most cases of VAW are from intimate partners and occur in the home.

The social and economic cost of IPV is enormous and has grave impact on the family. IPV has also been associated with higher rates of infant and child mortality and morbidity such as diarrhoeal disease and malnutrition (Karamagi, 2007). Women who are victims of IPV may experience isolation, inability to work, loss of wages, lack of participation in regular activities and limited ability to care for themselves and their children (WHO, 2012). The limited ability to care for their offspring may also be an indirect consequence of IPV. This may result from the fact that the woman is not psychologically fit to make timely decisions on the health and well being of her child (Ellsberg et al., 2008). The inability of the woman to make decisions may also increase child mortality and morbidity rates. Hence, morbidity and mortality may occur because of delay in making decision to assess health care, poor access to health information and delay in taking effective action when the child is ill.

IPV is one of the psychosocial factors that influence a child’s morbidity status (Campbell, 2002). It could result in childhood illness by creating psychological stress, resulting from observing IPV. The stress in turn can influence immune reactivity and increase vulnerability to illness (Friedman, 2002). IPV can also affect child health outcome from the related violence, injury, and mistreatment of children by fathers who abuse their female partners (Herrenkohl, 2008) (Christian, 1997). It can also affect child health negatively from the resultant negative physical or psychological maternal health outcomes such as stress and depression, suicidal thoughts and vulnerability/risk of infectious diseases like HIV/AIDS (Ellsberg, 2008, Sutherland, 1998, Coker, 2002, Silverman, 2008).

Despite higher levels of both IPV and childhood morbidity in most developing countries, information about the association between IPV and child morbidity/mortality is limited (Jejeebhoy, 1998, Conemi, 2003). Little is known about the effect of IPV on the survival of the offspring of victims in Africa and especially in Nigeria.

Conceptual framework for the study

A conceptual framework adapted from Emily Rico et al was modified (figure 1) and used to hypothesize the assumed association between IPV and under-five morbidity (Rico et al., 2010). It outlines how IPV could lead to child morbidity and how other confounding variables could possibly play a role in enhancing or reducing these associations. Pathway1 shows how IPV through maternal factors lead to under- five morbidity. The health problems include mainly the physical and the psychosocial effects. All these problems tend to reduce the exposed mother's ability to cater for herself and for the child leading to poor child attention, child malnutrition and increased morbidity. Pathway 2 shows IPV could also be related to under –five morbidity via direct effect on the child. This could occur prenatally leading to poor pregnancy outcomes like ante-partum haemorrhage, spontaneous abortion, prematurity, and still births due to combined effect of trauma on the abdomen or activity of stress hormone on the pregnancy. Postnatally, children are advertently victims of IPV either when being used as a shield or when trying to intervene out of fear. Pathway 3 features social and demographic factors (confounders) which do not cause under-five morbidity directly, but mediates the association between IPV and child morbidity.

METHODOLOGY

STUDY AREA

The 2008 NDHS was conducted in all the states of Nigeria including the Federal Capital Territory (FCT). Nigeria has 36 states (including the Federal Capital Territory) grouped into six geopolitical zones: North Central, North East, North West, South East, South-South, and South West. There are 774 constitutionally recognized local government areas (LGAs) in the country and about 374 identifiable ethnic groups, with the Igbo, Hausa, and Yoruba as the major groups. The 2006 National Population Census estimates Nigeria's population to be 140,431,790. The national growth rate is estimated at 3.2 percent per annum and population density is 150pop/sq.km. Nigeria is the most populous country in Africa (UN, 2011).

STUDY DESIGN

The study is a secondary data analysis of 2008 NDHS data. The primary survey utilized a cross sectional population based survey.

STUDY POPULATION

Women and men aged 15 to 49 years were the target of 2008 NDHS.

For this study, married women within the reproductive age of 15-49 years in Nigeria constituted the target population. The study population was obtained as sub-samples from the women interviewed in the DHS who participated in the domestic violence module.

ELIGIBILITY CRITERIA:

Inclusion criteria Married women within the reproductive age 15 to 49 years who participated in the domestic violence module and has at least one child ≤5years old (0-59months) will be eligible for the study.

Exclusion criteria Married women aged 15 to 49 years who had not been living with her partner/spouse in the 12 months prior to survey.

STUDY VARIABLES

Independent variables

Exposure to IPV: Exposure to IPV was assessed using the DHS intimate partner module which is based on a modified previous version of the conflict tactics scale (CTS) (Straus, 1990). Based on this scale, respondents were classified as "exposed" and "non-exposed" to violence. IPV referred to any exposure to one or several of the types of IPV; physical, sexual or psychological acts of violence against women by a current, former husband or intimate partner. Women were asked questions on physical, sexual and emotional forms of violence perpetrated by their husbands

These questions were asked to estimate the prevalence of physical, sexual, emotional violence and controlling behaviours. For women who were currently married, the questions were asked with reference to the current husband and for women who were formerly but not currently married, they were asked with reference to the women's most recent husband. Women could respond 'yes' or 'no' to each item.

Socio-demographic variables: Socio-demographic variables included age of the woman, highest level of education, region, type of residence, wealth index, occupation, partner's occupational status and educational level.

Potential Confounding variables: Some of the confounding variables included are age of child, sex of child, vaccination status, breastfeeding status, parity, use of insecticide treated bed nets, type of cooking fuel, water supply, sanitation etc.

Dependent variables

To provide an assessment of child morbidity outcomes, three common childhood illnesses were analysed: diarrhoea, acute respiratory infection (ARI) and fever. For each child under five years of age, women indicated whether the child had been ill with fever in the two weeks preceding the survey. Experience of an episode of diarrhoea (2 or more loose stools per day) in the 2 weeks prior to the survey was also elicited. A symptom of ARI was defined as report of cough accompanied by short, rapid breathing in the two weeks prior to the survey. Binary variables were created to define diarrhoea, ARI and fever, which indicated the presence of these outcomes among the children in the past 2 weeks.

Fever in last two weeks: In the 2008 NDHS, women were asked if their child had been ill with fever in the last two weeks preceding the survey. During the analysis, result was based on whether response was Yes/No.

Acute respiratory infection (ARI) in last two weeks: Analysis was based on Yes/No response

Diarrhoea in last two weeks: Result of analysis was based on Yes/No response

A binary variable was also created for any illness, defined as any episode of fever, cough or diarrhoea in the two weeks prior to survey

DATA MANAGEMENT

The primary data was subjected to initial data processing, which consisted of office editing, coding of open-ended questions, data entry and editing computer-identified errors. SPSS version 15.0 was used for analysis of data. Frequency tables were used to show the distribution of respondents by the key variables. Values were expressed as absolute numbers, percentages and charts for key variables. The pattern and prevalence of intimate partner violence, sociodemographic and economic factors influencing victimization were described using tables. Bivariate analysis was performed for each dependent variable against the independent variables. The independent variables that were significantly associated with each dependent variable were potential confounders and were entered into a model for logistic regression. A Chi square test was used to assess association between categorical variables and level of significance was set at 5%.

Logistic regression analysis was used to assess predictors of under-five morbidity. Models were also constructed to estimate odds ratio and 95% C.I for association of IPV with child morbidity (no IPV experience as referent group). Models were adjusted for a set of demographic characteristics determined a priori, specifically maternal age, educational level, wealth index and type of residence (urban vs. rural).
To account for potential environmental confounders, diarrhoea-related analyses were adjusted for sanitation status (i.e. household drinking water source and type of toilet facility). ARI-related analysis was adjusted for type of cooking fuel.

ETHICAL CONSIDERATIONS

For this study, approval to use the NDHS data was requested for from Measure DHS. In the NDHS 2008 survey, informed consent was obtained from participants, voluntariness was maintained and confidentiality was ensured. Also, it was mandatory that no harm should come to participants.

RESULTS

Socio-demographic characteristics of respondents

Table 1 below shows the socio demographic characteristics of respondents. The mean age of the respondents was 29.0 ± 6.8 years. About half of the women (51.0%) were between 25 and 34 years, all the women were married, many (56.4%) were Muslims and 41.4% were Christians. Majority (49.3%) of the respondents had no formal education and most (72.2%) resided in rural areas. The North West geo-political zone recorded highest number of respondents (28.3%). More than half of the respondents (64.3%) were currently working and majority (72.3%) had three or more children. Most respondents (49.7%) belonged to the poor wealth category.

Table 1 Socio-demographic characteristics of respondents

VARIABLE	FREQUENCY N=21160	%
Age group (years)		
15-24	5428	25.7
25-34	10783	51.0
≥35	4949	23.3
Maternal educational level		
No formal education	10439	49.3
Primary	4839	22.9
Secondary	4803	22.7
Tertiary or higher	1079	5.1
Region		
North Central	3668	17.3
North East	4564	21.6
North West	5978	28.3
South East	1886	8.9
South South	2322	11.0
South West	2742	13.0
Type of place of residence		
Urban	5883	27.8
Rural	15277	72.2
Religion		
Christian	8692	41.1
Islam	11937	56.4
Traditionalist	373	1.8
Others	158	0.7
Respondent currently working		
Yes	7549	37.5
No	13611	62.5
Parity		
1	2082	9.8
2	3785	17.9
≥3	15293	72.3
Wealth index		

Poor	10526	49.7
Middle	4041	19.1
Rich	6593	31.2

Child's Characteristics and morbidity pattern

Table 2 below shows the child's characteristics and morbidity pattern. Mean age of the children was 27 ± 17.1 months. More than half (61.9%) of the respondents' children were over 23 months old. About half (50.9%) were males, while (41.1%) were females. Majority of the children (86.2%) had not slept under any bed nets within two weeks preceding the survey. Only 13.6% of them had fever, 10.3% had symptoms of ARI, and 9.0% had diarrhoea two weeks prior to the survey. About one-fifth, 21.9% had any illness (fever, cough or diarrhoea).

Table 2: Child's characteristics and morbidity pattern

VARIABLE	FREQUENCY N= 21160	%
Age (months)		
0 – 11	4332	20.5
12-23	3732	17.6
≥ 24	13096	61.9
Sex		
Male	10779	50.9
Female	10381	49.1
Vaccination status		
Yes	9190	43.4
No	11970	56.6
Availability of bed net for sleeping		
No bed net	18242	86.2
Treated bed nets	1243	5.9
Untreated bed nets	1675	7.9
Fever in the past two weeks		
Yes	2888	13.6
No	18272	86.4
Diarrhoea in past two weeks		
Yes	1899	9.1
No	19261	91.9
Symptoms of ARI in past two weeks		
Yes	2180	10.3
No	18980	89.7
Any illness		
Yes	4631	21.9

Table 3 Association between socio demographic factors and childhood morbidity

Variable	Any childhood illness		Total	X^2	p-value
	Yes (%)	No (%)	n (%)		
Maternal Age(years)					
15-24 years	1251(23.0)	4177(77.0)	5428(100)	7.045	0.030*
25-34 years	2344(50.6)	8439(78.3)	10783(100)		
≥ 35 years	1036(20.9)	3913(79.1)	4949(100)		
Maternal education					
None	2271(21.8)	8168(78.2)	10439(100)	2.298	0.513
Primary	1064(22.0)	3775(78.0)	4839(100)		
Secondary	1076(23.2)	3727(77.6)	4803(100)		
Tertiary	220(20.4)	859(79.6)	1079(100)		
Residence					
Rural	3404(22.3)	11873(77.7)	15277(100)	5.046	0.025*
Urban	1227(20.9)	4656(79.1)	5883(100)		
Maternal occupation					
Working	3048(22.4)	10563(77.6)	13611(100)	5.760	0.016*
Not working	1583(21.0)	5966(79.0)	7549(100)		
Parity					
1	578(27.8)	1504(72.2)	2082(100)	48.882	<0.001*
2	770(20.3)	3015(79.7)	3785(100)		
≥ 3	3283(21.5)	12010(78.5)	15293(100)		
Wealth index					
Poor	2360(22.4)	8166(77.6)	1056(100)	3.566	0.168
Middle	858(21.2)	3183(78.8)	4041(100)		
Rich	1413(21.4)	5180(78.6)	6593(100)		

***Significant at 5% level of significance.**

Table 4 Association between child's characteristics and childhood morbidity

Variable	Any childhood illness		Total	X^2	p-value
	Yes (%)	No (%)	n (%)		
Age (months)					
0-11	1061(24.5)	3271(75.5)	4332(100)	408.499	<0.001*
12-23	1230(33.0)	2502(67.0)	3732(100)		
≥24	2340(17.9)	10756(82.1)	13096(100)		
Sex					
Male	2398(22.2)	8381(77.8)	10779(100)	1.678	0.195
Female	2233(21.5)	8148(78.5)	10381(100)		
Breastfeeding status					
Full	1958(19.2)	4931(80.8)	6889(100)	307.722	<0.001*
Partial	2673(28.4)	11598(71.6)	14271(100)		
Vaccination					
Yes	864(19.4)	3491(80.6)	4355(100)	99.725	<0.001*
No	2322(19.8)	9648(80.2)	11970(100)		
Availability of bed net					
None	3947(21.6)	14295(78.4)	18242(100)	5.847	0.054
Treated	280(22.5)	963(77.5)	1243(100)		
Untreated	404(24.1)	1271(75.9)	1675(100)		

***Significant at 5% level of significance.**

Table 5: Association between IPV and childhood morbidity

Variable	Any illness		Total	X^2	p-value
	Yes	No			
Combined IPV					
Yes	1069(23.2%)	11798(76.8%)	15360(100%)	55.777	<0.001*
No	3562(18.4%)	4731(81.6%)	5800(100%)		
Physical IPV					
Yes	1065(23.3%)	13022(76.7%)	4572(100%)	6.766	0.009*
No	3566(21.5%)	3507(78.5%)	16588(100%)		
Sexual IPV					
Yes	363(18.6%)	1586(81.4%)	1949(100%)	13.351	<0.001*
No	4268(22.2%)	14943(77.8%)	19211(100%)		
Emotional IPV					
Yes	1384(23.5%)	4508(76.5%)	5892(100%)	12.287	<0.001*
No	3247(21.3%)	12021(78.7%)	15268(100%)		
Controlling behaviours					
Yes	3227(23.1%)	10734(76.9%)	13961(100%)	36.241	<0.001*
No	1404(19.5%)	5795(80.5%)	7199(100%)		

***Significant at 5% level of significance.**

Table 6: Association between IPV and experienced history of fever, ARI and diarrhoea

Variable	Combined IPV		Total	X^2	p-value
Childhood illness	**Yes (%)**	**No (%)**	**n (%)**		
Diarrhoea					
Yes	1490(9.7)	13870(90.3)	15360(100)	36.160	<0.001
No	409(7.1)	5391(92.9)	5800(100)		
ARI					
Yes	1702(11.1)	13658(88.9)	15360(100)	36.730	<0.001
No	478(8.2)	5322(91.8)	5800(100)		
Fever					
Yes	2251(14.7)	13109(85.3)	15360(100)	48.173	<0.001
No	637(11.0)	5163(89.0)	5800(100)		

Table 7: Logistic regression on predictors of childhood morbidity

VARIABLE	OR	95% CI Lower	95% CI Upper	p-value
Type of residence				
Rural(REF)	1.000			
Urban	0.923	0.851	1.001	0.052
Maternal age				
15-24 years(REF)	1.000			
25-34 years	1.017	0.934	1.107	0.705
≥35 years	1.018	0.911	1.137	0.755
Respondent working				
Yes	0.908	0.846	0.976	0.009*
No(REF)	1.000			
Parity				
1(REF)	1.000			
2	0.953	0.864	1.051	0.337
≥3	1.338	1.188	1.507	<0.001*
Vaccination				
Yes	0.689	0.644	0.737	<0.001*
No(REF)	1.000			
Exclusive breastfeeding				
Partial(REF)	1.000			
Full	0.294	0.201	0.430	<0.001*
Partner alcohol use				
Yes	1.173	1.066	1.292	<0.001*
No(REF)	1.000			
Any IPV				
Yes(REF)	1.000			
No	0.821	0.701	0.960	0.014*

*** Significant at 5% level of significance**

Table 8 Logistic Regression on types of IPV and childhood morbidity

	Diarrhoea AOR (95% CI)	ARI AOR (95% CI)	Fever AOR (95% CI)	Any illness AOR (95% CI)
Types of IPV				
None (Reference)	1.000	1.000	1.000	1.000
Sexual	1.62(1.30-2.01)*	1.36(1.14-1.62)*	1.52(1.28-1.79)*	1.63(1.42-1.88)*
Physical	1.17(1.02-1.36)*	0.65(0.58-0.75)	0.84(0.78-0.94)	0.85(0.77-0.94)
Emotional	0.79(0.71-0.90)	0.94(0.84-1.06)	0.87(0.79-0.97)	0.87(0.80-0.95)
Controlling behaviour	0.71(0.64-0.79)	0.82(0.74-0.90)	0.79(0.73-0.87)	0.81(0.75-0.87)

*Significant at 5% level of significance

DISSCUSION

The success of any violence prevention programme lies on the awareness of the prevalence and adverse consequences of IPV to both mother and child by members of the society. Various studies conducted have examined IPV prevalence and its effect on women's health, but very few have related it to the health of children. This study focused on women that had experienced IPV in the past year to see how IPV experience affected the health of their children. The study also explored other factors that were responsible for childhood morbidity in Nigeria which includes type of residence, region, wealth index, mother's educational level and environmental factors such as drinking water source, toilet facility and type of cooking fuel used in the home.

The findings of this study revealed that approximately three-quarter (72.6%) of currently married Nigerian women with children below the age of five years experienced combined IPV (physical, sexual, emotional and controlling behaviour) in the past year. This was in accordance with the study conducted by Sileshi et al in Ethiopia where past 12 months prevalence of IPV was 72.5%, and in contrast to the study done in Bangladesh where prevalence of maternal IPV experience was 29%. A possible explanation for this seemingly disparity in prevalence from the study could be adduced to the inclusion of controlling behaviour as a type of IPV which was not included in the previous studies cited (Sileshi et al., 2011).

A high prevalence of physical and emotional IPV experience was found among mothers of under- five children. This finding was consistent with a study done in India where 37% of women admitted to being physically or sexually abused by their husbands (Ackerson and Subramanian, 2009). Findings were also in accordance with a study conducted in South Africa where prevalence of physical violence against a current female partner was 27.5% (Gupta et al., 2008). Findings also revealed that mothers who had experienced emotional violence and controlling behaviour were more than half of the respondents. According to the NFHS conducted in India, prevalence of physical IPV was 35%, sexual IPV was 10% and emotional IPV was 16% (Asling-Monemi et al., 2008) which corresponds with findings from this study. The high prevalence of emotional IPV also corroborates findings from the work of Fawole et al. conducted in Ibadan, South Western Nigeria among rural and urban communities, where prevalence of emotional violence was found to be high. The implication of this high prevalence demonstrate the need to implement primary prevention strategies such as enacting legislation and developing policies that protect women; addressing discrimination against women and promoting gender equality by ensuring women are empowered in every facet of life.

A previous study conducted in Bangladesh showed that factors influencing childhood morbidity included young maternal age, maternal educational level, parity and maternal occupation (Silverman et al., 2009). Other studies have shown early motherhood, maternal unemployment (Goodwin et al., 2003), severe poverty (Carlson et al., 2000), and spousal alcoholic consumption (Sharps et al., 2003), as factors influencing childhood morbidity. However in this study, predictors of child morbidity were maternal age, parity, breastfeeding, vaccination status of child and partner alcoholic consumption. Similarly, in studies done in South Africa and Ethiopia, husbands' alcohol consumption was a major predictor of childhood morbidity (Gass et al., 2011), (Sileshi et al., 2011). Another major predictor of childhood morbidity from this study was child's vaccination status and findings was contrary to results of the Uganda study (Karamagi, 2007), where association of vaccination with infant illness

was significant in the unadjusted analysis but was not significant on adjustment for logistic regression model. Possible explanation for the significant association found from this study could be as a result of the large sample size of the NDHS data used which increased the validity, compared to their population-based household survey with a sample size of 457 women.

Urgent need arises for women empowerment by the employment of women. Empowerment will enable them protect themselves from IPV. Education will empower the woman to seek accurate information and make informed choices concerning healthcare needs of her child, and also to take proactive actions when the child becomes ill. An educationally empowered woman would also be more knowledgeable on spacing of subsequent pregnancies and appropriate family planning methods suitable to her needs.

In Nigeria, maternal experience of sexual IPV was associated with increased risk of any illness, diarrhoea, ARI, and fever in children aged five years and younger. The findings of an increased risk of childhood diarrhoea, ARI and fever in abused women's children was in consonance with previous reports in Bangladesh (Silverman et al., 2009) of an association between physical or sexual partner violence and diarrhoea and ARI of the child. This finding is similar to results from the study by Rahman and Mostofa (2009) in Bangladesh where physical and sexual IPV experience of mothers predicted childhood diarrhoea and ARI. Another study in Uganda (Karamagi et al., 2007) found mixed evidence for an association between maternal lifetime IPV and common childhood illness. The current research expands on these previous studies by using a large national sample from the NDHS and included information on the association between maternal physical, sexual, emotional IPV and controlling behaviours with common childhood illness. Prevention of physical and sexual abuse of mothers by their partners is essential for the improvement of child health in Nigeria.

Findings from this study though corroborated by other studies, had some limitations. Firstly, it was not possible to determine temporality, whether IPV occurred before or after the childhood illness, therefore longitudinal studies may be required to ascertain causality in the association between IPV and childhood morbidity/mortality. Also, the respondents might have experienced the different types of IPV. This may be underreported because IPV is a sensitive issue, usually associated with stigmatization. Thus, women may be reluctant to reveal their true abuse status.

CONCLUSION AND RECOMMENDATIONS

Findings from this study revealed that experience of physical and sexual IPV among women in Nigeria is a key determinant of under-five morbidity (diarrhoea and ARI). Most common morbidities identified were diarrhoea, ARI and fever. Sexual IPV experience of mothers was found to be a major predictor of the commonest childhood morbidities and this was significant for diarrhoea, ARI and fever.

Prevalence of IPV was found to be high in Nigeria, taking into consideration all forms of IPV, including controlling behaviour. Prevalence of controlling behaviour was found to be high, compared to other forms of IPV.

Parity, residence, partner's occupational status, partner's alcohol consumption and any IPV appeared to be predictors of childhood morbidity in Nigeria. Other predictors were age of the child, breastfeeding and vaccination status. Also, environmental factors such as drinking water source and type of cooking fuel were also found to predict child morbidity status.

Much has been advocated and several suggestions has been made by several authors on proffering lasting solutions to curbing the menace of IPV that has become entrenched in the society. Recommendations from this study involve creation of public policies and laws that protect women from experiencing violence at local and International levels. Legislation and policies must reinforce the message that intimate partner violence is a crime and that perpetrators will be punished and victims protected. These policies must focus on the protection of children and address the impact of violence in the home on children. It is also important to enact legislation and develop policies that address discrimination against women and promote gender equality. Women should be empowered by way of education and employment as IPV has been reported to be a consequence of gender inequality. This is to enable them improve their ability in making informed choices and decisions with regards to their health and that of their children. It is also advocated that routine screening of women for IPV by health care professionals should be incorporated into basic healthcare delivery services, especially the infant welfare clinics and also, provision of counselling services for identified victims of abuse.

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