Gender Relation and High-risk Births in Nigeria: An analysis of 2018 Nigeria Demographic and Health Survey

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Extended Abstract

Introduction

The issue of high-risk birth (HRB) has been a major maternal and reproductive health concern across the globe. This is because maternal health is an essential pointer for measuring quality of health care in any country of the world. It refers to the health of women during conception, childbirth, and during postpartum period. This study examined the nexus of gender relations and high risk births in Nigeria.

Methods

The study utilized secondary data from the 2018 Nigeria Demographic and Health Survey (NDHS) women's recode dataset. The 2018 NDHS gathered information from a total of 41,821 women aged 15-49 weighted sample size, who have had at least one in the last five years preceding the survey were analyzed in the study using percentages, chi-square analysis and multinomial logistic regression models.

Results

It was found that three-fifths (63%) were in avoidable risk. Gender relation was found to be associated with high-risk births (χ^2 =20.3 P<0.05). Other variables that showed significant association with high-risk birth include: respondents' current age, age at first birth, education, wealth index, contraceptive use, place of residence, region, marital status, and fertility preference, children ever born, number of living children (χ^2=5975.2 P<0.01; χ^2=4656.1 P<0.01; χ^2= 3125.89 P<0.01; χ^2=1184.8; χ^2=75.8 P<0.01; χ^2=474.6 P<0.01; χ^2=21200.0 P<0.01; χ^2 =1349.4 P<0.01;

χ^2=2279.70 P<0.01; χ^2= 1338.4 P<0.01; χ^2=15400.0 P<0.01) respectively. Multivariate analysis using multinomial logistic regression, found gender relation was a strong of High-risk birth as it was only significant for masculine gender relation to be in unavoidable risk relative to avoidable risk ((RRR=0.79, P<0.05).

The relative risk for education of the respondents shows that, as women educational attainment increases, they are more likely to be in unavoidable risk relative to avoidable risk category (RRR=1.32, P<0.05, RRR=2.14, P<0.05 & RRR=3.18, P<0.05) for primary, secondary and higher education respectively using no education as the reference category and the result is significant.

Table Showing Cross-Tabulation of Gender Relation and High-Risk Birth in Nigeria

VARIABLES	**HIGH RISK BIRTHS STATUS**		
	No Risk	**Unavoidable Risks**	**Avoidable Risks**
Gender Relation			
Feminine	21.11	16.53	62.36
Egalitarian	23.08	17.16	59.76
Masculine	21.87	14.41	63.72
χ^2 =20.3 P<0.05			

Table showing Multinomial Logistic Regression of Gender Relation, Contraceptive Use and Socio-Demographic Characteristics on High-Risk Birth. (Model Full Model)

Model IV	**High Risk Birth Status**					
Variables	**No Risk**			**Unavoidable Risk**		
Full Model	**RRR**	**P >|t|**	**95% C.I**	**RRR**	**P >|t|**	**95% C.I**
Age						

15-19 **(RC)**	-	-	-	-	-	-	-	-
20-34	23.99**	0.000	18.868	30.524	11.40**	0.000	9.328	13.938
35+	6.44**	0.000	4.776	8.696	1.15	0.463	0.797	1.645
Education								
No education **(RC)**	-	-	-	-	-	-	-	-
Primary	1.13**	0.004	1.004	1.270	1.32**	0.004	1.090	1.589
Secondary	1.11	0.124	0.970	1.281	2.14**	0.000	1.768	2.587
Higher	1.18	0.152	0.942	1.474	3.18**	0.000	2.385	4.226
Wealth Index								
Poor **(RC)**	-	-	-	-	-	-	-	-
Middle	1.00	0.966	0.888	1.121	1.05	0.636	0.870	1.255
Rich	1.16	0.069	0.989	1.353	1.14	0.202	0.931	1.403
Marital status								
Never in union **(RC)**	-	-	-	-	-	-	-	-
Married	2.00**	0.000	1.383	2.895	0.64**	0.002	0.485	0.856
Others	1.91**	0.003	1.252	2.918	0.57**	0.006	0.383	0.851
Occupation								
Not Working **(RC)**	-	-	-	-	-	-	-	-
Working	1.09	0.055	0.998	1.187	0.83**	0.001	0.742	0.931
Religion								
Christianity **(RC)**	-	-	-	-	-	-	-	-
Islam	0.99	0.866	0.861	1.134	0.88	0.130	0.735	1.041
Traditional and others	1.09	0.626	0.765	1.560	1.11	0.636	0.715	1.730
Place of Residence								

Urban **(RC)**	-	-	-	-	-	-	-	-
Rural	1.07	0.225	0.958	1.120	0.93	0.302	0.799	1.073
Region								
North East **(RC)**	-	-	-	-	-	-	-	-
North West	0.91	0.210	0.795	1.052	0.82	0.057	0.662	1.006
North Central	0.92	0.412	0.776	1.109	0.76**	0.032	0.596	0.977
South East	1.21	0.175	0.918	1.601	1.05	0.805	0.716	1.537
South South	1.01	0.904	0.851	1.120	0.92	0.504	0.730	1.167
South West	1.03	0.752	0.844	1.265	1.07	0.588	0.843	1.351
Ethnicity								
Hausa/Fulani **(RC)**	-	-	-	-	-	-	-	-
Yoruba	1.55**	0.001	1.210	1.985	1.25	0.094	0.963	1.612
Igbo	0.77	0.070	0.582	1.021	1.21	0.313	0.838	1.738
Others	1.15	0.070	0.989	1.338	1.08	0.453	0.881	1.329
Gender Relation								
Feminine **(RC)**	-	-	-	-	-	-	-	-
Egalitarian	1.04	0.004**	0.786	1.378	0.87	0.312	0.666	1.139
Masculine	1.20	0..001**	0.938	1.537	1.02	0.865	0.827	1.269
Children Ever Born								
1-2 **(RC)**	-	-	-	-	-	-	-	-
3-4	0.79**	0.001	0.678	0.910	0.06**	0.000	0.048	0.083
5+	0.03**	0.000	0.019	0.035	0.00**	0.000	0.000	0.004
Number of living Children								
1-2 **(RC)**	-	-	-	-	-	-	-	-
3-4	0.84**	0.013	0.729	0.963	0.34**	0.000	0.247	0.473
5+	0.37**	0.000	0.247	0.544	0.32	0.422	0.020	0.150

Fertility Preference								
Have another **(RC)**	-	-	-	-	-	-	-	-
Undecided	0.90	0.198	0.764	1.058	0.63**	0.001	0.479	0.824
Have No more	0.65**	0.000	0.559	0.761	0.38**	0.000	0.282	0.505
Constant	0.02	0.000	0.015	0.041	0.35	0.000	0.212	0.567

***Significant at p< 0.05 ** Sig @p<0.001**

Conclusion

The findings from this study highlights the public health and developmental essence of gender relation and contraceptive use in attenuating high-risk birth. It demonstrates high levels of high-risk birth as well as, high distribution of gender relation skewed against women and this predict their birth risk status.

Gender relation is associated with and has implication for high-risk birth vis-a vis the health of mother and their offspring alike, this study concludes that gender relation is a predictor of high-risk birth in Nigeria..

Lastly, the study concludes that efforts to raise women's status and reduce the persistently high-risk birth in tandem with the Sustainable Development Goals 3 and 5 aspirations of good and healthy lives for all; and gender equality