Gender Relations and the Utilization of Sexual and Reproductive Healthcare Services in three Contrasting African Settings

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Introduction

In spite of widespread global health transition, sexual and reproductive health outcomes in Sub-Saharan Africa (SSA) remain one of the poorest. According to a World Health Organization (WHO) report, approximately 810 women died daily from pregnancy and childbirth related complications in 2017 with the highest risk being among females under the age of 15 and women living in Sub-Saharan Africa[1]. The sub-continent's maternal mortality rate (MMR) per 100,000 live births, according to the report, was 534. The figure masks country-specific MMR that are as high as 1,150, 1,140, and 917 deaths per 100,000 live births in South Sudan, Chad and Nigeria respectively. Under-five and neonatal mortality in SSA are also the highest in the world with one in thirteen children dying before the age of five[2] and 28 neonatal deaths in 1,000 live births[3]. The prevalence of modern contraceptives in SSA (24.1%) is the lowest in the world[4], the sub-continent accounts for most of the estimated 25 million cases of unsafe abortion procured annually[5] and Antenatal Care (ANC) utilization in SSA rate is 52%[6]. The country variation in contraceptive use ranges from 5.0% in Chad to 65.5% and 65.8% in Eswatini and Zimbabwe respectively[7]. Chad also had the lowest prevalence of ANC utilization (31.0%) while Ghana had 85% prevalence[6].

While studies on reproductive health in SSA, including at national and sub-national levels, and particularly on the poor outcomes and their underlying dimensions, are not in short supply in the literature, the role of household gender relations on the outcomes has been less investigated. Much less investigated is the relationship across countries. In the few cross-country studies on gender and reproductive health outcomes in SSA[8-13], the level and contextual characteristics of gender relations in countries were not taken into cognizance in selecting the study countries. This made a comparison of how gender relations influence reproductive health outcomes in feministic, patriarchal and gender egalitarian settings in SSA difficult. The study is therefore situated in three purposively selected countries with contrasting gender equality index in Sub-Saharan Africa. These are Kenya, Namibia and Nigeria. The overarching hypothesis of the study is that the uptake of contraceptives and antenatal care services is higher in countries with more feministic gender relations.

Methods

Study Setting

In the 2020 global gender report by the World Economic Forum (WEF), Namibia was ranked 12th of 153 countries on the gender equality index. The ranking makes Namibia the highest ranked SSA country on

gender equality. The lowest ranked countries were Nigeria, Burkina Faso, Gambia, Mali, Togo, Cote d'Ivoire, Chad and Democratic Republic of Congo (DRC). For this study, Namibia and Nigeria were purposively selected to represent the two ends of the index while Kenya, 109th on the global rank and 19th of the 32 SSA countries on the index, represents the middle category.

Data Source and Study Population

The latest Demographic and Health Surveys (DHS) in Kenya, Namibia and Nigeria were used for the study. The Kenyan DHS, Namibian DHS and Nigerian DHS comprised a weighted sample of 31,079, 10,018 and 41,821 women aged 15-49 respectively. Of these, 23,245, 6,453 and 29,992 were parous in Kenya, Namibia and Nigeria respectively, and by implication, qualified to have used antenatal care services. The parous women constituted the study sample.

Variable Description

Two main outcome variables were employed for the study. These were the use of modern contraceptives and ANC utilization. The main predictor variable, gender relations, was derived from variables 632, 739, 743A, 743B, 743D and 743F. These variables measured the women's decision-making powers by asking who decided on the respondents' use of contraceptives, how their earnings were spent, their healthcare, large household purchases, visits to family and relatives, and how their spouses' earnings are spent.

Data Analysis

Descriptive analysis was carried out on the levels of contraceptive and ANC utilization in the three countries. The explanatory variables were equally analyzed descriptively at the univariate level. Chi Square test statistics was used at the bivariate level to determine the associations between the outcome variables and the explanatory variables. The analyses were conducted separately for each of the outcome variables and for each of the three countries. As the outcome variables are binary; modern contraceptive use and non-use, and <4 and 4+ ANC visits, the binary logistic regression was employed at the multivariate level of data analysis. Two regression models each were generated for determining the relationship between each of the outcome variables and the set of predictors at both the unadjusted and adjusted levels.

Results

Background Characteristics

Gender relations were mostly masculinist in Nigeria with 62.5% of the respondents recording masculine gender relations and only 5.7% reported feminine gender relations. In Namibia and Kenya, equal gender relations were most prevalent. But while the distribution of feminine and masculine gender relations was

almost the same in Kenya, feminine gender relations (20.0%) were over three times more prevalent than masculine gender relations (6.1%) in Namibia. The prevalence of contraceptive use was a mere 12.3% in Nigeria compared to Kenya's 45.5% and Namibia's 57.8%. Quite interestingly however, ANC utilization was highest among the Nigerian sample (42.1%). It was 34.8% in Kenya and 38.8% in Namibia.

Sociodemographic Dimensions of Contraceptive and ANC Utilization

In the three countries, women with equal gender relations were the highest users of contraceptives. The prevalence was lowest among women who reported more masculine gender relations. The pattern of ANC utilization also shows that women who reported equal gender relations utilized the services more. Like with contraceptive use, masculine gender relations were associated with the lowest proportion of ANC utilization among the study population in the three countries. In the three countries, urban residence, higher education, partners with higher education, rich wealth status, having between one and four children wealth, and being exposed to radio and TV were associated with higher utilization of ANC services among the respondents. Women who were in union had higher ANC utilization in Kenya, whereas single women, who were never in union or were previously in union, had higher utilization in Namibia and Nigeria. While ANC utilization was higher among Christians of other denominations in Kenya and Namibia, it was higher among Catholics in Nigeria. Women who had not experienced intimate partner violence had higher ANC utilization in Kenya and Namibia. The spatial pattern of ANC utilization in the three countries shows that the North-Eastern region of Kenya and North-West region of Nigeria still had the lowest utilization. The utilization rate was lowest in the Kunene region of Namibia. All the associations between the explanatory variables and the two outcome variables were statistically significant ($P < 0.005$) except for family composition and contraceptive use, intimate partner violence and contraceptive use, marital status and ANC, and intimate partner violence and ANC in Namibia.

Determinants of Contraceptive and ANC Utilization in SSA

At the unadjusted level, masculine gender relations were statistically found to significantly increase the likelihood that women in Sub-Saharan Africa would use contraceptives and antenatal care services. The odds of contraceptive use were however higher in Namibia than in Kenya and Nigeria. For ANC utilization, the likelihood was also higher in Namibia than in Nigeria and Kenya. Feministic gender relations were only significantly associated with contraceptive use in Namibia and Nigeria. The relations did not significantly influence contraceptive use in Kenya and ANC utilization in the three countries. When the models were adjusted and the sociodemographic variables were controlled for, feminine gender relations did not significantly predict contraceptive use or ANC utilization in any of the three countries. The masculine gender relations which significantly predicted contraceptive and ANC utilization in the unadjusted models

became only significant in predicting the likelihood of contraceptive use in Kenya and Nigeria. The masculine gender relations had no significant association with ANC utilization in any of the countries.

Table 1: Unadjusted Odds Ratio of the Regression of Gender Relations and Maternal Health

Country	**Kenya**		**Namibia**		**Nigeria**	
Variable	**C – Use**	**ANC**	**C – Use**	**ANC**	**C – Use**	**ANC**
Gender Relations	UOR	UOR	UOR	UOR	UOR	UOR
Feminine	1.104	1.088	1.282**	1.126	1.219**	1.040
Masculine	1.782**	1.340**	1.805**	2.304**	1.675**	2.235**
Equal	RC	RC	RC	RC	RC	RC

C-Use: Contraceptive Use, ANC: Antenatal Care, UOR: Unadjusted Odds Ratio, **significant at 95% Confidence Interval, RC: Reference Category

In Kenya in the adjusted models, while age, urban residence, religion, active coital frequency, experience of intimate partner violence and access to radio and TV significantly lowered the odds of contraceptive use, women with no education, whose partners had no education and from poor households were more likely to use contraceptives. Urban residence and religion were associated with lower utilization of ANC while wealth and education increased the likelihoods of ANC utilization. In Namibia, age and access to radio and TV were associated with lower odds of contraceptive utilization while education and coital frequency increased the odds. None of the variables was significantly related to ANC utilization in Namibia. In Nigeria, age, urban residence, coital frequency, experience of intimate partner violence and media access were significantly associated with lower odds of contraceptive use. Education, number of children and having more female children were associated with increased odds of contraceptive use however. Age, education and wealth status were positive predictors of ANC utilization in Nigeria while residence, religion, number of children ever born and media access were associated with lower likelihood of ANC utilization. Relative to Nairobi, Otjozondjupa and the South-West regions of Kenya, Namibia and Nigeria, the odds of contraceptive use were higher in North-Eastern, Kavango and South-East regions of the three counties respectively. All the regions in Nigeria had higher odds of ANC utilization.