Full Length Research Paper

Gender norms and roles indices as determinants of access to sexual and reproductive health services among primary caregivers of orphan and vulnerable children in Lagos State, Nigeria

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Abstract

Background: Access to reproductive health services (maternal, family planning services, and HIV services) continues to be a major public health concern in Sub-Saharan Africa and Nigeria. Studies in Nigeria have explored factors influencing access to health care services. However, most studies have not explored the influence of gender norms and roles on access to reproductive health services. Method: This study adopted a cross-sectional design and multi-staged random sampling technique in selecting the respondents that were interviewed. Logistics/Poisson regression was used to analyze the variables at the bivariate/multivariate level. Results: Women's autonomy, participation in leadership, household headship, employment and household tasks were significantly associated with access to sexual and reproductive health care services. Women's autonomy led to a 16% increase in access to sexual and reproductive health care services [OR=1.16;95%CI=1.09-1.22]. Women who possess assets were more likely to access sexual and reproductive health care services by 5% [OR=1.05;95%CI=0.97-1.13]. Socio-demographic factors such as employment, marital status, and residence are significantly associated with access to reproductive health and HIV services. Conclusion: Access to reproductive health care services can be improved by increasing the women's decision-making power within the households, providing enabling environment for women to possess assets/property, and increase control of women over resources.

Keywords: Gender Norms and Roles, Orphans and Vulnerable Children (OVC), reproductive health care services, women autonomy, primary caregiver. Maternal Mortality rate (MMR).

Background

The high rate of maternal mortality is a major public health concern, especially in low and lower-middle-income countries especially Nigeria (Fridayet al., 2018). In 2017, the maternal mortality rate (MMR) in low-income countries is 462 per 100,000 live births compared with 11 per 100,000 live births in high-income countries (WHO, 2019). In developing countries, access to maternal and family planning services continues to be a major public health problem, the World Health Organization (WHO) estimated that in 2020 around 358,000 maternal deaths occur annually in the world, with more than half of these death occurring in developing countries (WHO, 2020). Specifically, sub-Saharan Africa accounts for 57% of these deaths. According to the World Health Organization (WHO), the maternal mortality rate in Nigeria alone is 814 per 100,000 live births, one of the highest in Africa, ranking the third among the 18 countries with a very high maternal mortality rate (MMR) in the world (WHO, 2019). High MMR is due to barriers in accessing sexual and reproductive health

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(SRH) services, these barriers include awareness/knowledge of SRH, gender norms and roles, poor accessibility, and poor quality of services of SRH (Friday et al., 2018 Souksamore, 2019). With these barriers and the high rate of MMR achieving SDG 3 in Nigeria is nearly impossible if laudable measures are not undertaken to combat the problem, especially focusing on how the gender norms and roles indices affect access to sexual and reproductive health services.

Nigeria is the most populous country in Africa and 7th in the world (Yahaya, 2019, NPC, 2020, UN, 2022). Nigeria's population is estimated to be about 216 million people based on United Nations data in 2022 (United Nations, 2022). The population is almost equally divided across both genders, 50.6% for males and 49.4% for females. Sub-Saharan Africa and Nigeria is a patriarchal setting where the male is more superior to their female counterpart and have rights and dominance over the women (Yahaya et al., 2019). In such a setting, restrictions are imposed on women's participation in family and societal activities this in form of gender norms and roles, which in turn causes them to have low autonomy in matters that affect them including household, sexual and reproductive health matters. Thus, limiting their access to reproductive and other maternal health care services. Gender norms are social norms that define what a man is, what a woman is and how they should act. They act as implicit rules regulating our individual and social behaviour. In this light, gender norms determine how we should behave depending on our gender identity. These norms are taught to integrate, apply and teach to others. Gender norms are not just concept that comes up occasionally, they are real and have a concrete impact on the lives of people and they affect the physical, psychological, social, medical and economic areas of people in the society.

Maternal mortality is naturally affected by women, denial of women's involvement in making decision that affects their health could contribute significantly to the very high maternal mortality rate seen in Nigeria. Women's decision-making power is measured by the ability of women to take and participate in major household decision regarding their own health and utilization of health services, on major household purchases, and the decision to visit family and relatives (Measure evaluation, 2019). The ability of women to take and participate in these decision-making dimensions has been empirically revealed to improve access to sexual and reproductive health care services (Mondal, 2020). Reducing levels of maternal mortality and morbidity depends on the increase use of maternal health and family planning services because high rates of maternal, neonatal, and child mortality are associated with inadequate access and poor-quality of reproductive healthcare, which includes family planning and maternal health care (WHO, 2011).

In 2015, United Nations General Assembly set a target under Sustainable Development Goals (SDG) 3 to reduce global maternal mortality to less than 70 per 100,000 live births by 2030; thus, achieving this sustainable development goal on maternal health requires: (i.) providing access to maternal health services, family planning services, HIV/AIDS services, high-quality pregnancy and delivery care, including essential obstetric care, and improving women's sexual and reproductive health (WHO, 2011) and (ii.) through women

having access and autonomy to sexual and reproductive health services. Women's autonomy is a multidimensional concept indicating the capacity and freedom to act independently (Pradhan et al., 2003). It encompasses women's ability to formulate strategic choices, control resources, and participate in decision-making (Bloom et al., 2001). Autonomy is usually measured by three dimensions: access to and control over resources, participation in decision-making, and freedom of movement (Mondal et al., 2020). Several studies conducted in India (Mondal et al., 2020), Malaysia (Yahaya Yakubu, 2019), Tanzania (Garrison-Desany et al., 2021), Nigeria (Abayomi et al., 2018, Chima, 2018, Fawole et al., 2015), and Ghana (Ameyaw et al., 2016) have documented that women's autonomy has a positive impact on access to sexual reproductive healthcare services. Their studies also indicated that when women's autonomy is restricted by limiting their movement, involvement in decision-making, and financial independence, the consequences are relatively lower use of sexual and reproductive healthcare services among women.

There are about 140 million orphan and vulnerable children in the world and about 54 million in sub-Saharan Africa (Federal Ministry of Women Affairs, 2014). Nigeria's Federal Ministry of Women Affairs and Social Development (FMWSD) estimates that there are 17.5 million orphan and vulnerable children (OVC) in Nigeria as at the last survey in 2008 (OVC Case Management SOP 2017). In Nigeria, primary caregivers of OVC are extremely affected by the inability to access and utilize sexual and reproductive healthcare services, thus, impacting negatively on their health and that of the OVC, due to ever-emerging needs and demands of caring for the diverse needs of children. Gender norms and roles play a key role in determining access and utilization. Many studies focus on identifying factors associated with maternal health care utilization, and the use of family planning services, the determinants identified were factors related to sociodemographic characteristics (place of residence, women's level of education, socioeconomic level), factors related to the health system (insufficient family planning services), gender inequality, women's autonomy, and sociocultural factors (Beniamino, 2020).

However, few studies have focused on gender norms and roles and their influence on access to reproductive healthcare services. The present study attempts to examine the association between gender norms and roles and access to reproductive healthcare services among primary caregivers of orphan and vulnerable children in Lagos State, Nigeria. The key objectives of the study are: (i) To assess the prevalent Gender Norms and Role Indices among the participants (ii) To determine the association between the sociodemographic characteristics and access to sexual and reproductive health services (iii) To determine the association between Gender Norms and Roles Indices and Access to Sexual and Reproductive Health Services.

Theoretical and conceptual framework

This study adoptedthe Andersen and Newman Framework of Health Service Utilization. This framework was developed by Andersen to ascertain factors for the use and access to healthcare services by individuals. Andersen's Behavioural

Model has been used in studies examining the use of health services, health systems, and health conditions (Babitsch, Gohl, and Von Lengerke 2012, Solanke, 2021). The framework predicts that a series of factors predisposing, enabling, and need factors influence the use of health services by people. According to the model, predisposing factors are socio-demographic factors. Enabling factors facilitate individuals to use and access services, for instance, availability of resources such as income, availability to make the decision, and access to the service. Need factors motivate service use. In this study, predisposing factors are age, place of residence, employment, head of household, and marital status. Enabling factors are gender norms and roles. Need factors are feelings of being sick. The study aims to examine how predisposing and enabling factors influence access to sexual and reproductive health services of orphan and vulnerable children's of primary caregivers in Lagos state. We hypothesize that women's autonomy affects their behavior independent of maternal socio-demographic characteristics. This hypothesis assumes that increased women's autonomy may increase their decision-making power and enable them to access sexual and reproductive health services.

The conceptual framework shows the connection between socio-demographic variables, gender norms and roles indices and its effect on sexual and reproductive health care services. The dependent variable was access to sexual and reproductive health care services, and it was measured by access to family planning, maternal health (antenatal services), and HIV/AIDS services.

The independent variable was Gender norms and roles and was measured by women's participation in house tasks, women's autonomy/decision-making, women's participation in leadership, and women's possession of assets. Variables of women's autonomy include: Decision to work and earn, income spending/sharing, Access to health care, Initiating/refusing sexual intercourse, use of family planning, accessing healthcare for children, owing properties, Access and control over resources. Women's participation in leadership variable was measured by participation in community leadership, religious and political leadership. Women's participation in household tasks was measured by children care, collecting water, cleaning, cooking, food purchase, and health care of relatives. Also, socio-demographic factors such as age, residence, employment, marital status, and type of head of household

METHODOLOGY

The study adopted a cross-sectional community-based study conducted in five local government areas in Lagos State, Nigeria among Primary Caregivers of Orphan and Vulnerable Children households. Participants were randomly selected in the five local government areas where the study was conducted. Component of the methodology used were discussed below.

Study location

The study was conducted within the households of Orphan and vulnerable children enrolled in the USAID funded ICHSSA 2 project being implemented across 11 Local Governments Areas LGAs in Lagos State, Nigeria. Specifically, the study was conducted in 5 out of 11 LGAs: Ajeromi, Agege, Badagry, Lagos Mainland and Shomolu LGAs. The ICHSSA 2 Project is a USAID funded project designed to mitigate the impact of HIV/AID on vulnerable children and their households.

Study Participants

The participants of the study were 368 primary caregivers of Orphan and vulnerable children. Participants were drawn through random sample from caregivers in urban and semi urban locations, caregivers who are HIV positive and those of childbearing and caring for one or more adolescents.

Inclusion and Exclusion criteria

Only women who are primary caregivers were included in the study. This is mainly because women are naturally affected by maternal mortality. More so, 90% of targeted caregivers are women.

Sample size determination

The sample size for the study was determined using Lesli Fishers Formulae for calculating the sample size for descriptive cross-sectional study at the 5% significant level and 95% confidence interval.

$$N = \frac{Z^2 Pq}{d^2}$$

Where:
Z = Z-score corresponding to the level of statistical significance desired at 5% = 1.96
P = Prevalence of Access to Sexual and Reproductive Health Services = 66.8% (Akamike et al, 2020)
q = 1-P
d = desired level of precision required set at 5%
N = $\frac{1.96 \times 1.96 \times 0.668 \times 0.332}{0.05 \times 0.05}$
N = $\frac{0.851975}{0.0025}$
N = 341
Using 10% attrition rate the total sample size will now be 341 + 34 = 375
However, the sample size eventually used was 368.

Sampling Technique

Multi-stage sampling was used to ensure a representative sample. The sample consisted of 368 households, whose primary caregivers of orphans and vulnerable children were women from five local government in Lagos state Nigeria. Men were excluded as the primary focus was to assess access to maternal heath, sexual and reproductive health services.
Stage 1: Five LGAs were selected using the simple random sampling technique out of the 10 LGAs implementing the ICHSSA 2 Project.
Stage 2: Stratified random sampling was use to select 5 Wards and communities in each of the 5 selected LGAs.

Stage 3: Households were further selected through another simple random sampling using the already generated households unique ID generated from the NOMIS. In all 368 household with women as primary caregivers participated in the study.

Instruments for data collection

The data collection instrument used for this study was designed and piloted using Kobo toolbox to collect before deployment for fieldwork. The questionnaires had 5 sections: Section A contained information on consent and other ethical issues, Section B had information on socio-demographic characteristics, Section C contained information on Gender Norms and Roles, and Section D contain information on Access to sexual and reproductive health services. Experienced data collectors were engaged and trained on the survey instruments in a two-day training. The Data collectors were trained to use the designed questionnaire which was digitized and piloted to collect data using Kobo Collect on android phones. The training covered ethical issues and communication skills to administer the questionnaire. Each trained data collector administered the questionnaire on pre-selected caregivers (respondents) selected using the sampling procedure. Each data collector was also visited at least twice during the field data collection exercise.

Variables and measures

The dependent variable: The main dependent variable of the study is access to sexual and reproductive health care services, and it was measured using access to maternal health services (antenatal services), family planning, and HIV services. Women were asked whether they have access to antenatal, family planning, and HIV services, and the result was further used to generate the outcome variable.

The independent variable: in this study, the independent variables were developed from Andersen and Newman Framework of Health Service Utilization, which was divided into predisposing, enabling and need factors. The predisposing factors are the Socio-demographic factors, the enabling factor is the gender norms and roles component and need factor is feeling of being sick. Gender norms and roles were measured using four components: (i) women's participation in house tasks (ii) women's autonomy (iii) women's participation in leadership and (iv) women's possession of assets/property. Women's participation in house tasks was generated using the following questions "how personally are you involved in the following household tasks? cooking, collecting water, housework/cleaning, cooking, food purchase, and health care of children/relative" the result was collected to by the variable. Women's autonomy was generated by asking the following questions: "what is your level of decision-making in the following? The decision to work, the decision to visit relative, resources, health care for self, initiate sex/refuse sex, use family planning, health care for children" all the variables were collated to form the women's autonomy variable. Women's participation in leadership was also generated by asking the following question "what is your level of participation in the following

activities community, religious and political leadership". Women's possession of assets was generated from the following question "do you alone or jointly with your husband own the following properties: land, house, car, and jewelry" the result was further collated to generate the final variable. Socio-demographic variables such as age, gender, place of residence, head of household, marital status, and occupation were included to assess the independent effects of gender norms and roles variable on the outcome variable.

Data Analysis

The data were extracted from the KOBO Toolbox, cleaned, and analyzed using STATA software (version 14). Univariate, bivariate, and multivariate analyses were applied. First, we described the characteristics of the study population and cross-tabulated our dependent variables with the explanatory variables. A Binary Logistics regression was used to test the association between the dependent and independent variables at the bivariate level. Variables were then included in the multivariate analysis based on the association at the bivariate level. Multivariate Poisson regression analysis was done to identify the independent effects of explanatory variables on the outcomes of interest. Statistical tests for significance were done at the 5% level of significance. There are three models shown at the bivariate and multivariate levels. Model 1 contains predisposing factors and singular outcome variables which include (access to maternal services, family planning, and HIV services); Model 2 contains enabling factors (gender norms and roles) and the singular outcome variables, and Model 3 includes all explanatory variables. Models 1 and 2 were analyzed using Binary Logistics regression while Model 3 was analyzed using Poisson regression.

Ethical Approval

Ethical approval was obtained from Nigerian Institute for Medical Research (NIMR) ethical committee. Written and informed consent was obtained from the respondents.

RESULTS

Table 1 present the descriptive results of the predisposing factor (socio-demographic profile of respondents) and enabling factors (gender norms and roles). Women in the age group 38-47 years were about half of the sample population (50.3%), while two-third of the respondents (66%) were married. More than half of the respondents have their households headed by a male (55.4%) and reside in a rural area (53.3%) while only 34.8% reside in an urban center. More than half of the population were living with more than five people in a single household. Almost all the respondents are living in a rented apartment (83.9%) and are employed (82.3%).

Nearly all the women (93.9%) sampled were affected by women's participation in household tasks i.e., cooking, cleaning, doing house chores, and many more. However, the results further show that 67.5% of these women can decide on the things that affected their needs, such as the decision to
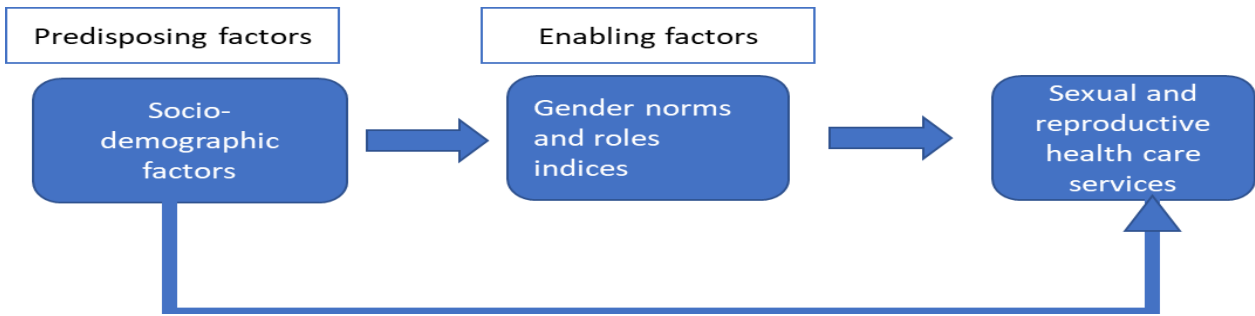
Figure 1. shows the conceptual framework of the study.

Table 1: Summary statistics of the predisposing factor (Socio-demographic variables) (n=368).

Variables	Frequency (n)	Percentage (%)
Independent variables		
Women's age group		
18-27	5	1.4
28-37	101	27.5
38-47	185	50.3
48-57	52	14.1
58-67	21	5.7
68+	4	1.0
Marital status		
No	125	34.0
Yes	243	66.0
Employment		
Working	303	82.3
Not working	65	17.7
Place of Residence		
Rural	196	53.3
Semi-urban	44	11.9
Urban	128	34.8
Household Head		
Female	164	44.6
Male	204	55.4
No of People living in a household		
Less than 5	177	48.1
5 and above	191	51.9
Accommodation Type		
Illegal Structure	12	3.3
Rented	309	83.9
Self-own	47	12.8

initiate and refuse sex, to work, the decision about their own health, and the decision to visit relatives and many others. The level of women's participation in leadership shows that nearly all the women do not participate in a leadership role (92.4%) and two-thirds (62.8%) do not have ownership of properties or valuable such as land, car, house, or jewelry. Furthermore, more than half of the primary orphan and vulnerable children caregiver women do not have access to maternal health services (69%) and family planning services (65.8%) but have

access to HIV counseling services (73.1%) and HIV testing services (73.9%).

Bivariate Analysis

Table 2 presents the bivariate analysis using Logistics regression. Model 1 shows the relationship between predisposing factors (socio-demographic factors) and access to Reproductive health care services (Maternal, Family planning,

Table 1.1 Summary statistics of Enabling factor (Gender norm and roles) (n=368).

Gender Norms and Roles	Frequency (n)	Percentage (%)
Women's participation in house tasks		
Children care	1	0.29
Food purchase	1	0.29
Health care of relative	5	1.44
Collecting water	32	9.22
House cleaning	57	16.43
cooking	251	72.33
Women's Autonomy		
No Autonomy	88	32.47
decision to work	29	10.7
Decision to visit relative	12	4.4
Decision to access resources	15	5.5
Decision to access health care for self	10	3..69
Decision to initiate sex	24	8.86
Decision to refuse sex	8	2.95
Decision to use family planning	6	2.2
Decision to access health care for children	79	29.15
Women's participation level in leadership		
No participation	293	92.4
Community leadership level	14	4.4
Religious leadership level	1	0.32
Political leadership level	9	2.84
Women's possession of asset		
No possession of asset	231	62.77
Land	104	28.26
House-dwelling	24	6.52
Car	7	1.90
Jewelry	2	0.54

HIV counseling and HIV testing health services) where the dependent variable is on a logit scale. The result revealed that women's occupation is significantly associated with maternal and HIV counseling health services but not significantly associated with Family planning and HIV testing health services. The result also shows that the age of the woman is only significantly associated with family planning services while marital status is not significantly associated with any reproductive health services, women who reside in the semi-urban area were significantly associated with maternal and family planning services only while women in urban are not significantly associated to maternal services only. However, male-headed households were significantly related to maternal health services but not significantly related to other health services.

The result further shows the odds ratios (OR) between predisposing factor (sociodemographic factors) and access to reproductive health services at each level. It shows that among married women compared to unmarried, the rate of access to maternal, HIV counseling and testing health services decreased by about 42% [IRR=0.85;95%CI=0.73-1.0] but access to family planning increased by 9%. Also, women who are working have higher odds of accessing maternal and family planning health services but are less likely to access HIV health services. However, a unit change in women's age will result in a decrease in their access to reproductive health

services at all four services. Women who reside in semi-urban have higher odds of accessing maternal, family planning and HIV counseling health care services but are less likely to access HIV testing services. Women living in urban areas were more likely to access maternal and family planning services but not as high as those residing in semi-urban areas but are less likely to access HIV counseling and testing services than women residing in rural areas. In relative to women living in illegal structures (shanties), women residing in a rented apartment were more likely to access maternal, family planning and HIV testing services but less likely to go for HIV counseling while women who lived in their self-own houses are more likely to access maternal health services but less likely to access family planning and HIV health services. Furthermore, among women whose household heads are male, compared to those whose household heads are female, the rate of their access to maternal health care services increased by a higher percentage, and 14% increased access to family planning services but are less likely to access HIV counseling and testing services. Also, women who lived with more than five people in their household compare with women with less than five people in their household are more likely to access reproductive health care services at all levels.

Table 2.1, present the bivariate analysis using Logistics regression. Model 1 shows the relationship between enabling factors (gender norms and roles) and access to sexual and

Table 1.2 Summary Statistics of the Outcome Variable (n=368).

OUTCOME VARIABLES (MATERNAL HEALTH SERVICES	Frequency (n)	Percentage (%)
Access to Antenatal services		
No	255	69.3
Yes	113	30.7
Access to Family planning services		
No	242	65.8
Yes	126	34.2
Access to HIV counseling		
No	99	26.9
Yes	269	73.1
Access to HIV testing		
No	96	26.1
Yes	272	73.9

reproductive health care services (Maternal, Family planning, and HIV counseling and testing health services) where the dependent variable is on a logit scale. The result revealed that women's participation in house tasks is not significantly related to maternal, family planning, and HIV testing but significantly related to HIV counseling while women's possession of assets/property is not significant at all levels of access to reproductive and health care services. Women's autonomy and women's participation in leadership were both significantly related to maternal, family planning, and HIV testing but not significantly related with HIV counseling.

The result further revealed the Odds ratio (OR) between Gender roles and norms and access to reproductive and health care services. Women who participated in house tasks were more likely to access maternal health care services by 9%, family planning services by 28%, HIV counseling by 40%, and access HIV testing by 19%, also, an increase in women's autonomy was associated with 97% increase in the rate of accessing maternal health services, 87% in family planning services, 33% in accessing HIV testing services with a 7% reduction in the rate of access to HIV counseling services. However, the more women assume a leadership position, the less likely the rate of access to maternal healthcare services by 42%, family planning by 38% and HIV counseling by 15%, and HIV testing health services by 28%. Women who have assets/property were less likely to access Maternal and HIV counseling services by 11% and 13% respectively and more likely to attend family planning and HIV testing health services by 30% and 32% respectively.

Multivariate analysis

Table 3: Model 3; presents the results for the multivariate Poisson regression for the association between predisposing and enabling factors which are the socio-demographic and gender norm and roles factors on access to reproductive health care services. After controlling for the predisposing and enabling factors the result shows that women's participation in leadership, house tasks, women autonomy, employment, and women whose place of residence is in the semi-urban area

were significantly related to access to reproductive and health care services. The result further revealed an increase in participation in the household task was associated with a 9% increment in access to health care services [OR=1.09;95%CI=1.00-1.18]. Also, an increase in women's autonomy will lead to a 16% increase in access to reproductive health care services [OR=1.16;95%CI=1.09-1.22]. Women who possess assets are more likely to access reproductive health care services by 5% [OR=1.05;95%CI=0.97-1.13].

Furthermore, an increase in women's participation in leadership will lead to a 15% reduction in the rate of access to reproductive and health care services [OR=0.8595%CI=0.79-0.90], this could be due to time constraints. When they are fully engrossed in leadership there may not be time for them to access health care services. Compare with those that were not working, women who were working were less likely to access reproductive and health care services by 13%[OR=0.87;95%CI=0.95-1.44], also women who were married unlike those that were not married were less likely to access reproductive healthcare services by 8%[OR=0.92;95%CI=0.78-1.08]. Moreover, when compare with the rural areas, women who reside in semi-urban areas were 48% more likely to access reproductive health care services [OR=1.48;95%CI=1.30-1.67] and those in urban areas were less likely to access reproductive health services [OR=0.91;95%CI=0.78-1.06]. Finally, women who were headed by a male household head were 10% more likely to access reproductive healthcare services when compared to women who were headed by a female household head [OR=1.10;95%CI=0.94-1.29].

DISCUSSION

The study examines the relationship between gender roles and norms and access to reproductive health care services using the framework provided by the Andersen behavioral model of health services utilization. The framework predicts that a series of factors predisposing, enabling, and need factors influence the use of health services by people.

Table 2 Model 1: Bivariate Logistics regression of the association between predisposing factors (Socio-demographic variable) and Access to Sexual and Reproductive Health care services.

Predisposing factors (Socio-demographic variables)	Maternal Health Services (Antenatal services)		Family Planning Services		HIV-Counseling		HIV-Testing	
Employment	OR [95%CI]	p-value	OR [95%CI]	p-value	OR [95%CI]	p-value	OR [95%CI]	p-value
Not working [303]	*1.00[ref]*							
Working [65]	2.74[1.33-5.65]	0.00	1.54[0.82-2.91]	0.174	0.25[0.11-0.61]	0.002	0.70[0.36-1.39]	0.311
Age	0.98[0.95-1.01]	0.09	0.97[0.94-0.99]	0.03	1.01[0.98-1.04]	0.669	0.98[0.96-1.01]	0.236
Marital Status								
No	*1.00[ref]*							
Yes	0.58[0.27-1.27]	0.17	1.09[0.54-2.17]	0.802	0.58[0.27-1.21]	0.148	0.60[0.28-1.24]	0.167
Place of residence								
Rural	*1.00[ref]*							
Semi-urban	4.52[2.17-9.45]	0.00	5.38[2.61-11.1]	0.000	2.58[0.85-7.78]	0.093	0.76[0.33-1.72]	0.511
Urban	1.59[0.95-2.69]	0.08	1.87[1.13-3.02]	0.014	0.32[0.19-0.55]	0.000	0.32[0.19-0.55]	0.000
Accommodation Type								
Illegal structure	*1.00[ref]*							
Rented	4.09[0.49-4.41]	0.19	1.14[0.35-5.61]	0.629	0.43[0.86-2.23]	0.321	2.42[0.70-8.37]	0.160
Self-own	1.62[0.16-5.88]	0.68	0.85[0.18-4.03]	0.841	0.83[0.13-5.14]	0.842	5.66[1.26-25.4]	0.024
Household Head								
female headed	*1.00[ref]*							
Male headed	3.63[1.71-7.7]	0.00	1.14[0.73-2.69]	0.305	0.85[0.42-1.67]	0.637	0.90[0.96-1.79]	0.782
People living in a house								
Below 5	*1.00[ref]*							
5& above	1.19[0.43-3.29]	0.73	1.26[0.48-3.28]	0.638	1.10[0.38-3.06]	0.872	2.09[0.82-5.31]	0.122

According to the model, predisposing factors are socio-demographic factors. Enabling factors facilitate individuals to use and access services, for instance, availability of resources such as income, availability to make the decision, and access to the service. Need factors motivate service use. In this study, predisposing factors are age, place of residence, employment, head of household, and marital status. Enabling factors are gender norms and roles. Need factors are feelings of being sick. The findings reveal the mean age of women interviewed to be 42 years and they are between the age group of (38-47)

Table2.1: Model 2: Bivariate Logistics regression of the association between enabling factor (Gender norm and roles) and Access to Sexual and Reproductive Health care services.

Access to R-Health care services	Maternal Health Services (Antenatal services)		Family Planning Services		HIV-Counseling		HIV-Testing	
	OR [95%CI]	p-value	OR [95%CI]	p-value	OR [95%CI]	p-value	OR [95%CI]	p-value
Women's participation in house task	1.09[0.80-1.49]	0.56	1.28[0.93-1.73]	0.121	1.40[1.07-1.82]	0.014	1.19[0.90-1.58]	0.200
Women's autonomy	1.97[1.50-2.58]	0.00	1.87[1.45-2.39]	0.000	0.93[0.76-1.13]	0.459	1.33[1.11-1.59]	0.002
Women's participation in leadership	0.58[0.44-0.75]	0.00	0.62[0.49-0.80]	0.000	0.85[0.68-1.08]	0.174	0.72[0.58-0.92]	0.008
Women's possessions of property	0.89[0.64-1.25]	0.51	1.30[0.96-1.78]	0.093	0.87[0.64-1.18]	0.384	1.32[0.93-1.87]	0.118

years. It also shows that most women interviewed were married (66%), employed (82.3%), and living in a rural area (53.3%). Most women are headed by men (55.4%) and living in a rented apartment (55.4%). Most of the women interviewed were working this could be due to the fact that the project support household through business startup, cash transfer and linking up to cooperative society. The study also focus on both women in the urban and rural area but more than half of the women lived in the rural area because the project gives priority to women that are most vulnerable and this set of people mostly reside in the rural area and living in a rented apartment. Nigeria is a patriarchy society, where most household were headed by the man this gives reason why more than half of household interviewed were headed by men.

The result revealed that most women participated in cooking more than any of the house tasks. Most women are not the decision-maker in their homes and those that can decide are mostly on the health of their children and little on their health. More than half of women do not participate in any form of leadership and do not possess any asset or property, this is due to the gender systems in Nigeria which are deeply hierarchical, privileging that which is male or masculine over that which is female or feminine, that is, women are meant to stay at home cook and take care of the children and listen to their husband, they are not meant to be decision maker, be a leader or possess any asset or possessions. From the

result, it could be seen that most women have access to HIV services and less to maternal or family planning services this could be because all the women interviewed are primary caregivers of orphan and vulnerable children with no service fee when accessing HIV services.

The findings of the study revealed that most women participated more in household task (chores), are mostly not the decision maker, do not participated in any form of leadership and do not possess any asset or property, this findings is in line with other studies (Heise et al, 2019, Weber et al. 2019) which reveals that gender norms and roles favours the men more than the women, that people follow the gender norms of their culture, society or group and Nigeria as a patriarchy society, women are meant to stay at home cook and take care of the children and listen to their husband, they are not meant to be decision maker, be a leader or possess any asset or possessions. The result also revealed that the indices of women's autonomy measured by "decision to work, visit relative, access resources, access health care for self, de initiate sex/refuse sex, use family planning, access health care for children" have a significant relationship with access to health care services. This agrees with other studies (Yahaya, 2019. Gbose, 2017, Haider, 2017. Kamiya, 2011) and Abayomi et al., (2018) study that was carried out in Nigeria, which stated that the higher the autonomy women have and the higher the increase rate in the use of health care services.

Table 3: Multivariate Poisson regression of the association between Gender Roles and norms, socio-demographic factors, and Access to health care services.

Access to Reproductive health care services	IRR [95% CI]	p-value
Gender Roles and Norm		
Women's participation in household task	1.09 [1.00 - 1.18]	0.048
Women's Autonomy	1.16 [1.09 - 1.22]	0.000
Women's participation in leadership	0.85 [0.79 - 0.90]	0.000
Women's processions of Assets	1.05 [0.97 - 1.13]	0.215
Socio-demographic Factors		
Age	0.99 [0.99 – 1.01]	0.965
Employment		
Not working	*1.00*	
Working	0.87 [0.95- 1.44]	0.031
Marital status		
No	*1.00*	
Yes	0.92 [0.78 - 1.08]	0.322
Place of residence		
Rural	*1.00*	
Urban	0.91 [0.78 - 1.06]	0.241
Semi-urban	1.48 [1.30 – 1.67]	0.000
Household Head		
Female-headed	*1.00*	
Male-headed	1.10 [0.94–1.29]	0.215
Accommodation type		
Illegal structures	*1.00*	
Rented	1.21[0.94-1.57]	0.145
Self-own	1.20[0.90-1.60]	0.218
Number of people living together		
Below 5	*1.00*	
5 and above	1.17[0.95-1.45]	0.129

Women's participation in leadership is also significantly associated with access to health care services which is also in agreement with Olufunmilayo et al., (2015) study carried out in Nigeria.

The multivariate result in table 3 shows that women who participated in leadership and women who are working are less likely to access reproductive health care services, this is with (Fawole et al, 2015, Agopian et al, 2012) in their studies which were stated that it can be because sometimes working women experience time constraints that reduce their opportunities to access health care services (Agopian et al., 2012). Women's economic dependency has long been understood to be a major factor in structuring inequalities between men and women. Hence, control over financial resources is often considered a central dimension when measuring women's household position. Accessing health care requires financial outlay for transportation, medicines, and in some cases consultation, thus a woman's ability to pay for these services with her earnings is an important determinant of access to reproductive and health care services (Ameyaw et al., 2016, Fawole et al., 2015), this study also shows that women possession of the property, women having control over their resources and financial life are more

likely to access health care services. A woman is a good standard for her health, the knowledge and practice, particularly as it relates to maternal health, are best known to her (Mullany et al., 2010). Hence, allowing her to take and partake in a decision that affects her health allows her to take prompt action and makes her health a priority. Contrary to this, her health might suffer setback.

Women's autonomy is an instrument when talking about access to reproductive health care services. Women's participation in leadership, and possession of assets or property by women also empower women in accessing health care services. With these findings, it is important that policymakers re-strategize their intervention in population health. Health policies and interventions should not only be based on the health system only, gender roles and norms should also be given a serious attention. The strength of this study is that it is one of the first studies to examine the effect of gender roles and norms on access to reproductive health care services among the primary caregivers of orphan and vulnerable children. The study further suggested studies on gender roles and norms on access to health care services among women living with HIV positive.

A study conducted in Tanzania by Garrisson-Desany et al in 2021 shows and association between Women autonomy and access to sexual and reproductive services, our study complements this study and also a study from urban Nigeria and Tanzania found that women who possess their own property or assets as an increased odd of accessing sexual and reproductive health services this study complement our study (Garrison-Desany et al, 2021, Meghan et al, 2014).

LIMITATION

This study has some limitation some of them Includes: (1) some variables are not collected variables like education, wealth index of the participant being interview and this variables and important factors in accessing access to sexual and reproductive health services (ii) The limitation of the study lies in the cross-sectional nature of the design; hence it was not possible to determine the causation. Despite its limitation, it can be said that gender roles and norms influence access to health care services.

CONCLUSION

The study examined the relationship between gender norms and roles on access to reproductive health care services by primary caregivers of OVC in Lagos state. Four indices of gender roles and norms which include "women's participation in household tasks, women's participation in leadership, and women's autonomy is significantly associated with access to reproductive health care services. Socio-demographic factors also revealed that marital status and place of residence were significantly associated with access to health care services. Access to reproductive health care services can be improved if there is an increase in the rate of women's decision-making power, women's possession of assets or property and control of women over resources. Women, in relation to gender roles and norms,if improved will have higher access to health care services. Also, the study revealed that women of less economic status are not empowered to make decisions even about their health; especially when they cannot pay for it in most cases. Generally, engagement in key activities and household tasks also limits the participation of women in decision making, and participation in a range of activities including accessing health care and or regular checks due to activities they engage in. This has varied implications for caregivers and the children in their care. The implication and findings are varied for various targeted gender norms interventions and empowerment programs, especially those targeting caregivers and women generally. Finally, harmful gender norms and roles are significantly associated with negative health outcomes.

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Conflict of Interests

The authors have not declared any conflict of interest.

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