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DETERMINANTS OF REPRODUCTIVE HEALTH SERVICE ACCESSIBILITY AMONG RURAL ADOLESCENTS IN THE SOUTH-EAST, NIGERIA.

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ABSTRACT

This study determined reproductive health service accessibility among rural adolescents in the South-Eastern Nigeria. Multistage sampling technique was used to select 282 adolescents between 15-19years who were in senior secondary school. A structured questionnaire, Focus Group Discussion (FGD) were used to collect information from the respondents. The data collected were analyzed using descriptive (frequencies and percentages) and inferential statistics (mean scores). The result revealed that level of accessibility was low, 21% spent less than 30 minutes to reach health facility. The study also revealed positive mean scores on perceived factors influencing rural adolescents accessibility to reproductive health services such as no perceived need for the services ($\bar{x}$ =3.08), fear of meeting a known person ($\bar{x}$ =3.09), personal dislike for the services ($\bar{x}$ =3.10), travelling distance to facility ($\bar{x}$ =3.11), ignorant of available reproductive health services in the health facility ($\bar{x}$ =3.11) and location of facility and its environment ($\bar{x}$ =3.15). Furthermore, probit regression estimates of relationship between respondents perceived factors and accessibility were negative and significantly related to reproductive health services at various levels of significance such as no perceived need (-1.95); perceived long awaiting period (-2.04**) and location of facility and its environment (-2.08**). while ignorant of reproductive health facilities available in the facility was positive and significant at (2.33**). In conclusion, the study found that accessibility to reproductive health services were low and seriously influenced by some adolescents' perceived factors. Therefore, the study recommended that government should collaborate with some other non-governmental agencies to establish more number of facilities offering youth friendly health services in order to reduce the travelling distance to reproductive health service centers.*

Keywords: Accessibility, rural adolescent and youth friendly reproductive health services

INTRODUCTION

Federal Ministry of Health (2009), defined adolescent and youth-friendly health services (AYFHS) as reproductive health information and services that is accessible and acceptable by young people, United Nations Fund for Population Activities (UNFPA,2013). According to Federal Ministry of Health (2014), Nigeria has initiated some key steps towards improving the

availability and quality of adolescent and youth friendly health services with specific attention to reproductive health services such as : Treatment and counseling for sexual concerns of males and females adolescent; Management of sexual abuse among girls/boys, counseling and provision of emergency contraceptive; Information and counseling on menstrual disorders, services and management of post abortion complication; Focused care during antenatal period except "the provision of safe abortion services" which is against the law of Nigeria (National Primary Health Care Development Agency (NPHCDA; 2013).

Adolescent is defined by World Health Organization (WHO,2011a) as a period between 10-19 years of age. Furthermore, World Health Organization (WHO, 2014) described adolescent as a time when young people engage in increasing risk-related behaviors that exposes them to many health challenges, out of an estimated 22 million unsafe abortions that occur yearly, 15% occur among young women aged 15-19 years. Also, Abajobir (2014) characterized adolescents as individuals who are not quite capable of understanding complex concepts, or relationship between behaviours and consequences, or the extent of control they have over health decision making including that which is related to sexual and reproductive health behaviours. This makes them vulnerable to sexual exploitation and high –risk sexual behaviours and reproductive health problems (Abajobir, 2014), there is now substantial amount of literature across the world indicating that adolescents are faced with Reproductive Health (RH) issues.

Youth friendly reproductive health information and services have been made available by Nigerian government through National Primary Health Care Development Agency (NPHCDA,2013). Accessibility to reproductive health care facilities and individual factors is important in ensuring that reproductive health information and services are utilized by rural adolescents. Accessibility of reproductive health services directly mean utilization of the services. meaning that, if rural adolescents cannot access the RHS the utilization will be limited. Accessibility of RHS facility is to be taken as an important factor in an individual's fulfilment of right to health at all levels. In order words. Proper access to health care for young people has been documented to reduce risky behaviours and improve health status of the young people (FMOH, 2014).

Research had shown low availability, low access and utilization of youth-friendly reproductive health services in Enugu state by Odo, Effion. Nwagu, Nnamali and Atama (2016) and Kaduna state by Nmadu (2017). In this regard, the study analyzed factors influencing accessibility to reproductive health services among adolescents in the South –East, Nigeria. The following specific objectives were to; ascertain adolescents level of accessibility to Reproductive Health services facility in the study area; examine factors influencing accessibility to Reproductive Health services provided to them.

METHODOLOGY

The study was carried out in three States of south-eastern Nigeria, Imo, Anambra and Ebonyi. Three –stage sampling procedures was adopted to select respondents for the study. First stage, two Local Government Areas were purposively selected from each of the States giving a total of six (6) LGAs. From each of the States, these were the LGAs selected: Anambra State: -Otuocha and Ihiala; Imo State: -Oru-east and Ihitte-uboma; Ebonyi State: - Ohaukwu and Ishelu. In the second stage, two secondary schools were purposively selected from each of States, giving a total of six (6) secondary schools from the three states under study. Anambra State: -Madonna Secondary School Umueri in Otuocha and St Jude Secondary School in Ihiala Local Government Area; Imo State: -Comprehensive secondary school Ishieke, Awo-omamma

in Oru East Local Government Area, and Abueke community secondary school in Ihitte-uboma Local Government Area; Ebonyi State: -Community secondary school, Okposhi Eheku Ohaukwu and Community Secondary Ntezi, Agege Ishelu Local Government Area. In the third stage, 16 adolescents were randomly selected from S.S. 1, S.S 2, S.S. 3, giving rise to 48 adolescents per secondary school This gave a total sample size of 288 adolescents from the six (6) secondary schools. Grand sample size used for the analysis were 282 questionnaire that were properlyfilled. Twenty (20) adolescents (male and females) were purposively selected for Focus Group Discussion; structured interview schedule was employed in recording responses collected from each of the respondents. Data generated were analyzed using descriptive and inferential statistics.

Measurement of Variables

The level of accessibility was realized and rated on 2-point Likert type scale of Travelling time from home to health facility (less than 30 minutes- high accessibility; more than 30 minutes - low accessibility. Factors influencing accessibility were measured and rated on 5- Point Likert rating scale of Strongly agreed =5, Agreed =4, Undecided = 3, Disagreed=2, Strongly Disagreed =1. The mean point was obtained thus; 5+4+3+2+1=15 divided by 5 to give 3. Following decision rule was obtained (less than 3.0- negative influence; greater than 3.00 and above - positive influence.

Model Specification

There was no significant relationship between personal/health service factors and adolescents' access to reproductive health services in the study area. This hypothesis was tested at 0.05% confidence level of significance using Multiple regression analysis. Probit regression model in implicit form is stated as follows:

$$y_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \alpha_7 X_7 + \alpha_8 X_8 + \varepsilon$$

Where Y = Accessed (proxied by less than 30minutes =1; more than 30minutes =0)
$X_1 - X_8$ = independent variables
e = error terms
Hence the parameters;
Where l = (dependent variables)
f = intercept
$X_1 - X_n$ = independent variables
e_I = error terms
Hence the parameters;
Y = Accessed to reproductive health service facility (probability of adolescent accessing rural health facilities ranges from 0-1).
X_1 = No perceived need for the service (yes =1, no =0)
X_2 =, Fear of meeting a known service persons' provider (yes =1, no =0), X_3 = Ignorant of available RH services in my locality (yes =1, no = 0)
X_4 = walking distance to reproductive health service facility (yes =1, no =0)
X_5 = Personal dislike for the service (yes =1, no =0)
X_6 = Facility opening hours (yes =1, no =0)
X_7 = Location of facility & its environment (yes =1, no=0)
X_8 = perceived awaiting time (yes =1, no =0).

RESULTS AND DISCUSSION

Distribution of respondents based on level of accessibility

Result in Table 1 indicates the level of accessibility of reproductive health service facility among adolescents. According to table 1, 47.5 percent of the adolescents have never visited any health facility in their locality and 27.3 percent claimed that they spent more than 30 minutes to reach the health facility in their locality. Also, 21.3 percent of the adolescents claimed that they spent less than/within 30minutes while 3.9percent of the respondents claimed that there is no government health care facility in their community.

The findings of the study were expected since adolescents do not have their own sources of income rather they depend on parents and relatives who may question them before giving them money so it is require that facilities should be station at a walkable distance in order to enable them seek information at their own convenient. According to Adefalu and Ayodele (2019) adolescents who can walk to health in less than 30minutes from their home is classified as having high accessibility and more than 30 minutes from their home was classified as having low accessibility. The findings of this study is in agreement with Kesterton and de Mello (2010) "accessibility of Reproductive health services by young adults is embedded in the distance to be covered per time to access the services and the extent at which the whole community helped the young ones received the services".

In focus group discussion with adolescents revealed that distance to the nearest health facility was one of their major problems in accessing and utilizing the services.

……. "*it takes up to 1hour from my home to reach health facility in my locality and I have no money for transport, secondly, I cannot ask my parents for money because they will think I have started going after men. So I go to a chemist near my home*" (15 years female).

……. "*I prefer going to the closest chemist to get help, considering the time to spend in travelling to health center to see a doctors l*" (16 years male).

……." *I have the believe that reproductive health problems are problems one can outgrow with time. So I don't need to go to hospital rather I treat it with herbal medicine"*. (18years female).

They suggested that service facility should be brought to schools, and within the community instead of health centers while some were of the opinion that stationing it in the health center is not a problem rather proper sensitization is required to be carried out so that people will have knowledge of what they can offer. This indicates that travelling distance taken more than 30minutes to avail the health services is a barrier to accessibility and utilization to health services.

Table 1: Distribution of respondents based on level of access to adolescent reproductive health services facility

Travel time to reproductive health facility	Anambra (n=94)	Ebonyi (n=94)	Imo (n=94)	South–East N=282
More than 30minutes	26(27.7)	25(24.5)	26(27.7)	77(27.3)
Within/Less than 30 minutes	23(24.5)	17(18.1)	20(21.8)	60(21.3)
Never visited any	42(44.7)	50(53.2)	42(44.7)	134(47.5)
No govt. health service facility in my community	3(3.2)	2(2.1)	6(6.4)	11(3.9)

Source: Field survey data, 2020. * Travel time ≤ 30 minutes high accessibility, >30minutes low accessibility. *values in parenthesis are percentages.

Perceived Factors Influencing Accessibility to Reproductive Health Services

Results on Table 2 show the analysis of perceived factors influencing respondents' accessibility to reproductive health services. The study showed that adolescents' perceived factors were determinant factors of accessibility to reproductive health services among rural adolescents. According to results in table 2, majority of the perceived factors had a positive mean scores indicating that accessibility was low as this factors were not improved. Location of facility and its environment was sighted as the most determinant of accessibility with a positive mean ($\overline{x}$ =3.15) followed by travelling distance to facility location affects their accessibility to health facility in their locality($\overline{x}$ =3.11). This is in agreement with Ajun and Ajun (2017), a travelling distance is a barrier to accessibility and utilization to health services. Also the result revealed that ignorant of available reproductive health services in the health facility($\overline{x}$ =3.11), personal dislike for the services ($\overline{x}$ =3.10), fear of meeting a known person ($\overline{x}$ =3.09) and no perceived need for the services ($\overline{x}$ =3.08) with a positive mean score indicating that the respondents accessibility to reductive health services are determined by these factors. The response from the respondents were not different from those in Nmadu (2017) and Odo (2016) who conducted similar studies in Kaduna and Enugu states.

The result inferred that reproductive health services provided with close proximity of facility and acceptable environment will increase accessibility among adolescents. In addition, issues around reproductive health are regarded as a taboo in some communities in the South –eastern Nigeria, and the perceived stigma (gossip) and embarrassment that accompany such can lead adolescents to demand privacy and confidentiality to be able to access reproductive health services. According to World Health Organization (WHO,2014) social expectation on how adolescents should behave places limit on their access to reproductive health services. The result of this findings is in consonance with Jonas, Cruzan, Van den Borne, & Reddy, (2017) services need to be provided in a youth-friendly environment with health workers that are welcoming and supportive towards adolescents seeking help. Also, Mulaudzi, Dlamin, Cetzee (2018), challenges to access and use of reproductive health services by adolescents may include lack of privacy and confidentiality, insensitive staff, threatening environments, and instability to afford services.

Table 2: Mean distribution of respondents based on the perceived factors influencing accessibility to reproductive health services in the study area

Variables	Anambra	Ebonyi	Imo	Southeast
Perceived factors	$\overline{x}$	$\overline{x}$	$\overline{x}$	**Grand** $\overline{x}$
No perceived need for the service	2.68	3.61	2.97	3.08
Fear of meeting a known service person	2.68	3.47	3.20	3.09
Ignorant of available RH services in my locality	3.05	3.38	2.88	3.11
Personal dislike for the service	2.78	3.31	3.20	3.10
Facility opening hours	2.83	3.45	2.99	3.09
Location of facility & its environment	2.80	3.46	3.18	3.15
Perceived long waiting period	2.60	3.47	3.20	3.09
travelling distance to RHS facility location	2.76	3.61	2.97	3.11
Grand mean score	2.77	3.47	3.07	3.10

Source: Field data, 2020. Decision: $\overline{x}$ > 3.0 positive, $\overline{x}$ ≤ 3.0 negative.

Relation between respondents perceived factors and accessibility of reproductive health services among rural adolescents' in the study area

Hypothesis 1: there was no significant relationship between perceived factors and accessibility to reproductive health services among adolescents in the study area.

Probit regression estimate of the relationship between respondents perceived factors and rural adolescent accessibility to reproductive health services. The result in Table 3 showed a log likelihood of -284.274073, X^2 (121.72***) and R^2 (0.4149). The table revealed that location of service and environment (z=-2.08< 0.05) was negative and significantly related to accessibility of reproductive health services in study area. This implies that provision of reproductive health service facility in a good location and conducive environment will improve the level of accessibility of youth-friendly reproductive health services among rural adolescents. According to Jonas, Crutzen, Van den Borne and Reddy (2017), service need to be provided in a youth-friendly environment with health workers that are welcoming and supportive towards adolescents seeking help. Also, the table revealed that perceived long waiting time (z= -2.04 <0.05) was negative and significantly related to accessibility of reproductive health services (y), according to one of the respondents …… *there are times one will come to the health facility, the number you will get will be 30 waiting for one person sometimes it will also be less, sometimes it can be discouraging (female, 17years).*This result implies that the more adolescents perceive that they will spent more time waiting for the service providers the less they will desire to access the health facility located in their locality. Furthermore, no perceived need for reproductive health services (z= -1.95<0.01) was negative and significantly related to accessibility of reproductive health services. This implies that when adolescents lack understanding of the need for reproductive health services, they will continue in their risky behaviours and deteriorated health status. This in other words leads to non-utilization of these services even when the facility is accessible. While, the results revealed ignorant of available reproductive health service facility among adolescents (z=2.33 <0.05) was positive and significantly related to accessibility of reproductive health services. The implication of this result is that as long as this adolescent are uninformed that these services are unavailable in the health centers, the desire to access the services will not be motivated. According to Okereke (2010) in his study in Imo state revealed that 72.2% of adolescents never sought information or treatment in the reproductive health facility. Therefore, we reject the null hypothesis and accept the alternative that there is a significant relationship between respondents perceived factors and accessibility of reproductive health services among rural adolescents in the study area.

The study revealed that adolescents perceived factors has great influence in determining the level of accessibility of youth-friendly reproductive health services among rural adolescents in the south-eastern Nigeria. Nmadu (2017) reported low accessibility of reproductive health services in Kaduna State. Low accessibility will also lead to low utilization of youth-friendly reproductive health services among rural adolescents. Schrivr, Meaglay, Norris, Greary and Stein (2014) observed the use of reproductive health services by the youths is reportedly low. This poses a serious threat to rural adolescent's reproductive health and rural agricultural productivity; in the sense that rural adolescent in particular are at risk of suffering the consequences of poor reproductive health challenges such as unwanted pregnancies, abortion, sexually Transmitted Infection and high level of school dropout rate more especially the female gender. A pregnant or sexually infected rural adolescent is a big problem to rural household and its agricultural productivity because unwanted pregnancy and Sexually Transmitted Infections are characterized by stigmatization and psychological trauma. A rural household

that has adolescent in this state of health does not only have to manage their labour inputs without that adolescents but will also loose the labour of the person taking care of him/her especially mothers. This is because most of the rural household labour are highly dependent on women and children. Also, a sick or pregnant adolescent adds financial burden to the rural household through anti-natal and medical treatment thereby competing with rural household finance which will invariably affect agricultural productivity and food security.

Table 3: Probit regression estimates of relationship between respondents perceived factors and accessibility of reproductive health services among rural adolescents' in the study area

Variables	Coefficient	Std. Error	Z
Constant	-1.8047	0.3636	-4.96***
No perceived need for the service	-0.5986	0.3069	-1.95*
Fear of meeting a known person	0.1250	0.2919	0.43
Ignorant of reproductive health facility in the locality	0.6863	0.2948	2.33**
Personal dislike for the service	0.3017	0.2976	1.01
Facility opening hours	0.1798	0.3028	0.59
Location of facility & its environment	-0.6984	0.3350	-2.08**
Perceived long awaiting period	-0.6507	0.3189	-2.04**
Walking distance to service facility	-0.0390	0.2952	-0.13
Log likelihood	-284.274073		
LR chi2(8)	121.72***		
Pseudo R2	0.4169		

Source: Field survey, 2020. Probit (P) = Intercept+BX. *, **, and *** is significant at 10%, 5% and 1% level of probability respectively

CONLUSION

The results revealed that accessibility to reproductive health services was low among rural adolescents. Also, with positive mean scores, respondents claimed that some perceived factors determine the level of accessibility to reproductive health services in the study area such as 'no perceived need for the services ($\overline{X}$ =3.08), fear of meeting a known person ($\overline{X}$ =3.09), personal dislike for the services ($\overline{X}$ =3.10), travelling distance to facility ($\overline{X}$ =3.11), ignorant of available reproductive health services in the health facility ($\overline{X}$ =3.11) and location of facility and its environment ($\overline{X}$ =3.15). While Probit regression estimate of perceived factors on the level of accessibility of reproductive health services revealed significant relationship at P< 0.01% and 0.05% which also led to rejection of null hypotheses.

RECOMMENDATIONS

There is the need for South- East Governments to collaborate with some other non-governmental agencies to establish more number of facilities offering adolescent friendly health services. This will go a long way in in improving level of accessibility and utilization of reproductive health services among rural adolescent in the south-eastern Nigeria.

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