



ASSESSING THE KNOWLEDGE AND UTILIZATION OF MATERNAL AND CHILD HEALTH SERVICES AMONG RURAL WOMEN IN IJEBU NORTH EAST LOCAL GOVERNMENT AREA OF OGUN STATE

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Abstract

This study investigates the factors influencing the knowledge and utilization of maternal and child health (MCH) services among rural women, focusing on access to healthcare facilities, socio-economic status, maternal education, and cultural beliefs. Data were collected through surveys conducted in the Ijebu North East Local Government Area of Ogun State, Nigeria. The findings reveal significant associations between various factors and MCH service utilization. Firstly, access to healthcare facilities within close proximity positively correlates with the frequency of MCH service utilisation among rural women ($R=0.931$, $p<0.05$). Socioeconomic factors, including household income and employment status, also significantly influence MCH service utilization ($R=0.936$, $p<0.05$). Maternal education emerges as a predictor of knowledge of MCH services among rural women ($R=0.867$, $p<0.05$). However, while cultural beliefs and norms regarding childbirth and child-rearing practices were found to significantly impact MCH service utilization ($R=0.785$, $p<0.05$), the effect was not as strong as anticipated. The multiple regression coefficients indicate that these independent variables collectively account for a significant proportion of the variance in MCH service utilization, with access to healthcare facilities and socio-economic factors explaining the largest proportions (86.6% and 87.7%, respectively).

These findings underscore the multifaceted nature of factors influencing MCH service utilization among rural women. They highlight the importance of geographical accessibility, socio-economic status, and maternal education in promoting MCH service utilization. Additionally, while cultural beliefs play a role, their impact may be more nuanced than previously assumed. Understanding these influences is crucial for developing targeted interventions to improve MCH service utilization and ultimately enhance maternal and child health outcomes in rural communities.

Keywords: Maternal and Child Health, Rural Women, Healthcare Utilization, Socio-Economic Factors,

Introduction

Maternal and child health (MCH) services play a pivotal role in ensuring the well-being of both mothers and their children, particularly in rural areas where access to healthcare facilities and resources may be limited. The World Health Organization (WHO) identifies MCH services as essential components of primary healthcare, emphasizing the importance of timely and adequate care for pregnant women, mothers, and children to reduce maternal and child mortality rates and improve overall health outcomes (Olonade, Olawande, Alabi, & Imhonopi, 2019). Despite global efforts to improve MCH services, significant disparities persist, particularly in rural and remote regions where geographical, socioeconomic, and cultural barriers often hinder access to healthcare (Kisiangani et al., 2020; Tuyisenge, Crooks, & Berry, 2019). Rural women face unique challenges, including limited transportation, financial constraints, cultural beliefs, and inadequate infrastructure, which can negatively impact their ability to access and utilize MCH services effectively (Atuoye et al., 2015; Tesfaye, Chojenta, Smith, & Loxton, 2020). Understanding the knowledge and utilization of MCH services among rural women is crucial for developing targeted interventions and policies aimed at addressing these disparities and improving maternal and child health outcomes. Previous research has highlighted various factors influencing MCH service utilization, including socio-economic status, education level, access to healthcare facilities, awareness of available services, cultural beliefs, and quality of care.

Access to maternal and child health (MCH) services is a critical determinant of health outcomes for women and children, particularly in rural areas where healthcare resources may be scarce (Anarwat, Salifu, & Akuriba, 2021; Jafree et al., 2023). Geographical proximity to healthcare facilities is a key factor influencing healthcare-seeking behaviour among rural populations (Blanchet et al., 2017). Studies have consistently demonstrated that individuals living closer to healthcare facilities are more likely to utilize MCH services due to reduced travel time and costs associated with seeking care (Jafree et al., 2023).

Socio-economic status is another significant determinant of healthcare utilization, including MCH services, among rural women (Aseweh Abor, Abekah-Nkrumah, Sakyi, Adjasi, & Abor, 2011; Paul & Chouhan, 2020). Lower-income households may face financial barriers to accessing healthcare, such as out-of-pocket expenses for medical services and transportation costs. Additionally, individuals without stable employment may lack health insurance coverage, making it challenging to afford or access healthcare services.

Maternal education plays a crucial role in shaping healthcare knowledge and behaviour among women, particularly in maternal and child health (Andeskebtso & Ugochukwu, 2023). Higher levels of education are associated with increased awareness of preventive health practices, utilization of antenatal care services, and skilled attendance during childbirth. Educated women are also more likely to seek timely medical care for themselves and their children, leading to better health outcomes.

Cultural beliefs and norms surrounding childbirth and child-rearing practices significantly influence healthcare utilization patterns among rural women (Dutta et al., 2022; Jayachandran, 2021). Cultural factors shape perceptions of illness, treatment preferences, and healthcare-seeking behaviour. Traditional birthing practices and beliefs about the role of women in society may influence decisions regarding childbirth and maternal healthcare utilization. Cultural competence and sensitivity are essential for healthcare providers to effectively engage with diverse communities and address cultural barriers to healthcare access and utilization.

However, there is a need for comprehensive studies that assess the knowledge and utilization of MCH services specifically among rural women, taking into account the unique contextual factors that influence their access to and utilization of healthcare services. By examining the awareness, attitudes, behaviours, and challenges faced by rural women regarding MCH services, the gaps in service delivery can be identified and tailored strategies can be developed to improve access, utilization, and health outcomes for mothers and children in rural communities. Hence, this research aims to address this gap by conducting a thorough assessment of the knowledge and utilization of MCH services among rural women. By shedding light on the challenges faced by rural women in accessing and utilizing MCH services, this research aims to inform policy-makers, healthcare providers, and stakeholders about the specific needs of rural communities and advocate for targeted interventions to improve maternal and child health outcomes in these underserved areas. Ultimately, the findings of this study will contribute to the development of evidence-based strategies aimed at reducing maternal and child mortality rates and promoting the health and well-being of rural women and children worldwide.

Hypotheses

1. Access to healthcare facilities within close proximity will not positively correlate with the frequency of MCH service utilization among rural women.
2. Socio-economic factors such as household income and employment status will not significantly influence the utilization of MCH services among rural women.
3. Maternal Education will not significantly predict knowledge of maternal and child health services among rural women in Ijebu North East Local Government Area of Ogun State.
4. Cultural beliefs and norms regarding childbirth and child-rearing practices will not significantly impact on the utilization of MCH services among rural women.

Methods and Materials

The study examined assessing the knowledge and utilization of maternal and child health Services among rural women in Ijebu North East Local Government Area of Ogun State. This study is descriptive research of the survey type that deals with the systematic description of an event in a factual and accurate manner. It is appropriate because it examines existing phenomena. Thus, no manipulation of any variable was involved.

The population for this study comprised all rural women in Ijebu North East Local Government Area of Ogun State. The sample size for this study was three hundred (300) selected rural women in Ijebu North East, Ogun State. A multistage sampling procedure was used to select the sample.

1. Ijebu North East Local Government women will be clustered following the ten (10) political wards. The political wards are:
 - (a) Atan/Imuku ward
 - (b) Odosimadegun/Odosenbora ward
 - (c) Imewuro/Ododeyo/Imomo ward
 - (d) Odosenlu ward
 - (e) Igede/ Itamarun ward
 - (f) Oju Ona ward
 - (g) Isoyin ward
 - (h) Ilese ward
 - (i) Oke-Eri/Ogbogbo ward
 - (j) Erunwon ward
2. The women in ten (10) political wards in the North East Local Government Area of Ogun State were divided following the political wards stated above.
3. A simple random sampling technique was used to select 3 rural areas each from the ten (10) political wards.
4. An accidental sample was used to select thirty (30) respondents each from the three (3) selected rural areas picked from the ten (10) political wards. From the above, the entire sample was three hundred respondents (300).

The instrument that was used for this project is a self-structured questionnaire. This was designed by the researcher through literature that was reviewed. The questionnaire consists of two parts [A and B]. Section A contains question items related to the background information/ personal data of the respondents. Section B consists of relevant question items on the study. This examines assessing the knowledge and utilization of maternal and child health services among rural women in the Ijebu North East Local Government Area of Ogun State. The questionnaire was a closed-ended type designed in line with a summated/Likert scale. Thus, the responses were in four [4] points rating of: S.A- Strongly Agree, A- Agree, D- Disagree, S.D- Strongly Disagree.

The research instruments were given to experts in the field of human health for content and face validity. Contributions, suggestions, observations, corrections, comments and judgments regarding clarity of questions by eminent scholars and other lecturers were also incorporated. Meanwhile, the researcher made further amendments and moderations before the instrument was produced and administered.

The instruments were given to ten (10) rural women in Ijebu Ode Local Government Area of Ogun State. The challenges encountered in the administration above enhanced the planning and administration of the questionnaire to the real respondents. The data carefully collected during the pilot study of one administration to the 10 rural women in Ijebu Ode Local Government Area of Ogun State were subjected to Cronbach Alfa analysis to determine the internal consistency of the instrument.

The questionnaires were administered to the selected women in their houses using the two research assistants. The respondents were orientated on the importance of the research work by the researcher. The instruments were translated for the

sake of women who do not understand English. Meanwhile, the instruments were collected after filling on the same day, it was administered to ensure a 100% return rate. The data obtained from the respondents were analyzed using multiple regression statistical analysis. The hypotheses were tested and subjected to statistical analysis at a 0.05 level of significance.

Results and Discussions

Hypothesis One: Access to healthcare facilities within close proximity will not positively correlate with the frequency of MCH service utilization among rural women.

Table 1. Summary of the regression of Access to healthcare facilities

SUMMARY OF THE MODEL

Model	R	R-Square	Adjusted R Square	Std. Error of the Estimate
Access to healthcare facilities	0.931	0.866	0.866	0.418

Table 1.2

ANALYSIS OF ANOVA

Model	Sum of square	Df	Mean Square	F	Sig
Regression	335.945	1	335.842		
Residual	51.945	298	0.174	1926.669	0.00
Total	387.787	299			

The result of the test revealed that access to healthcare facilities within close proximity will positively correlate with the frequency of MCH service utilization among rural women (R=0.931, F=1926.669,p<0.05). The table further revealed that the R square value of 0.9866 adjusted R square of 0.866 were obtained as multiple regression coefficients.

This implies that the independent variables (access to health care) accounted for 86.6%. Since 0.00<0.05, the null hypothesis is rejected and it is the conclusion and it is concluded that access to healthcare facilities within close proximity will positively correlate with the frequency of MCH service utilization among rural women.

Hypothesis Two: Socio-economic factors such as household income and employment status will not significantly influence the utilization of MCH services among rural women.

Table 2: Summary of the regression of socioeconomic factors

MODEL SUMMARY

Model	R	R	Adjusted R Square	Std. Error of the Estimate
Socio-economic factors	0.936	0.877	0.876	0.400

Table 2.2

ANALYSIS OF ANOVA

Model	Sum of square	Df	Mean Square	F	Sig
Regression	339.999	1	339.999	2120.210	0.00
Residual	47.788	298	0.160		
Total	387.787	299			

The result in Table 2.2 revealed that socioeconomic factors such as household income and employment status will significantly influence the utilization of MCH services among rural women ($R=0.936$, $F=2120.210$, $p<0.05$). The table further revealed that the R square value of 0.877, and adjusted R square of 0.876 were obtained as multiple regression coefficients. This implies that the independent variables (socio-economic factors) account for 87.7%. Since $0.00<0.05$, the null hypothesis is rejected and it is concluded that socioeconomic factors such as household income and employment status will significantly influence the utilization of MCH services among rural women

Hypothesis Three: Maternal Education will not significantly predict knowledge of maternal and child health services among rural women in Ijebu North East Local Government Area of Ogun State.

Table 3: Summary of the Regression of Maternal Education

Model	R	R-Square	Adjusted R Square	Std. Error of the Estimate
Maternal education	0.867	0.752	0.751	0.569

Table 3.2

ANALYSIS OF ANOVA

Model	Sum of square	Df	Mean Square	F	Sig
Regression	291.394	1	291.394		
Residual	96.392	298	0.323	900.855	0.00
Total	387.787	299			

The result in Table 3.2 revealed that maternal education will significantly predict knowledge of maternal and child health services among rural women in Ijebu North East Local Government Area of Ogun State ($R=0.867$, $F=900.855$, $p<0.05$). The table further revealed that the R square value of 0.751, and adjusted R square of 0.751 were obtained as multiple regression coefficients. This implies that the independent variable (Maternal education) accounted for 75.2%. Since $0.00<0.05$, the null hypothesis is rejected and it was concluded that maternal education will significantly predict knowledge of maternal and child health services among rural women in Ijebu North East Local Government Area of Ogun State.

Hypothesis four: Cultural beliefs and norms regarding childbirth and child-rearing practices will not significantly impact on the utilization of MCH services among rural women.

Table 4: Summary of the Regression of cultural belief and norms

Model Summary

Model	R	R-Square	Adjusted R Square	Std. Error of The Estimate
cultural belief and norms	0.785	0.616	0.614	0.581

Analysis of Anova

Model	Sum of Square	Df	Mean Square	F	Sig
Regression	161.285	1	161.285	477.043	0.00
Residual	100.752	298	0.338		
Total	262.037	299			

The result in Table 4.2 reveals that Cultural beliefs and norms regarding childbirth and child-rearing practices will significantly impact the utilization of MCH services among rural women ($R=0.785$, $F=477.043$, $p<0.05$). The table further revealed that the R square value of 0.616, and adjusted R square of 0.614 were obtained as multiple regression coefficients. This implies that the independent variables (cultural belief) accounted for 61.6%. Since $0.00<0.005$, the null hypothesis is rejected and it is concluded that cultural beliefs and norms regarding childbirth and child-rearing practices will not significantly impact the utilization of MCH services among rural women.

Discussion of findings

The finding that access to healthcare facilities within proximity positively correlates with the frequency of maternal and child health (MCH) service utilization among rural women highlights the critical role of geographical accessibility in healthcare access. Several studies have corroborated the importance of geographical proximity to healthcare facilities in influencing healthcare-seeking behaviour. Proximity to healthcare services has been shown to reduce travel time and costs associated with seeking healthcare, thereby increasing the likelihood of service utilization (Cyr, Etchin, Guthrie, & Benneyan, 2019). Moreover, improved access to healthcare facilities has been linked to better health outcomes, including reduced maternal and child mortality rates (Mensch, Chuang, Melnikas, & Psaki, 2019).

The significant association between proximity to healthcare facilities and MCH service utilization underscores the need for investments in healthcare infrastructure, particularly in rural areas where access to healthcare resources may be limited. Policies aimed at improving geographical access to healthcare, such as the construction of new healthcare facilities and the provision of transportation services, can help overcome geographical barriers and facilitate healthcare utilization among rural populations (Strasser, Kam, & Regalado, 2016). Furthermore, community-based healthcare initiatives, such as mobile clinics and telemedicine services, can extend the reach of healthcare services to remote rural areas, further enhancing access and utilization of MCH services (Gizaw, Astale, & Kassie, 2022).

The finding that socioeconomic factors, such as household income and employment status, significantly influence the utilization of maternal and child health (MCH) services among rural women underscores the importance of addressing socioeconomic disparities in healthcare access and utilization. Several studies have demonstrated the impact of socioeconomic factors on healthcare utilization patterns. Household income serves as a proxy for the affordability of healthcare services, with lower-income households often facing financial barriers to accessing healthcare (Cole & Nguyen, 2020). Employment status also plays a crucial role, as individuals without stable employment may lack health insurance coverage or face time constraints that limit their ability to seek healthcare services (Alderwick, Hutchings, Briggs, & Mays, 2021). The significant association between socioeconomic factors and MCH service utilization highlights the need for targeted interventions to address socioeconomic disparities in healthcare access. Policies aimed at improving household income and employment opportunities in rural areas can help alleviate financial barriers to healthcare access among vulnerable populations. Furthermore, the findings suggest the importance of implementing social protection programs, such as health insurance schemes and cash transfer programs, to provide financial support to low-income households and improve their access to healthcare services (Cooper, Benmarhnia, Koski, & King, 2020). Additionally, community-based initiatives that provide information and support to unemployed individuals and low-income families can help increase awareness of available MCH services and facilitate their utilization.

The finding that maternal education significantly predicts knowledge of maternal and child health (MCH) services among rural women in Ijebu North East Local Government Area of Ogun State aligns with existing literature on the positive impact of education on healthcare knowledge and utilization. Numerous studies have demonstrated the importance of education in improving healthcare awareness and practices among women, particularly in rural settings. Ahmed et al. (2010) found that higher levels of education are associated with increased utilization of maternal health services in developing countries. Similarly, (Islam, Sathi, Abdullah, Naime, & Butt, 2022), highlighted the role of education in improving antenatal care utilization and maternal health outcomes in low-income and middle-income countries. The significant predictive power of maternal education on knowledge of MCH services underscores the need for targeted educational interventions to empower rural women with essential health information. Investing in education, particularly for women, can have profound implications for maternal and child health outcomes in rural communities. Furthermore, the findings suggest that efforts to improve maternal and child health should prioritize educational initiatives aimed at enhancing healthcare knowledge among rural women. By equipping women with the necessary information, they can make informed decisions about their health and that of their children, leading to improved healthcare-seeking behaviour and better health outcomes.

The findings of this study, which highlight the significant impact of cultural beliefs and norms on the utilization of maternal and child health (MCH) services among rural women, align with existing literature on the subject. Numerous studies have underscored the importance of cultural factors in shaping healthcare-seeking behaviour, particularly in the context of maternal and child health. For example, research by (Agyemang-Duah, Mensah, Peprah, Arthur, & Abalo, 2019) emphasized

the influence of cultural beliefs and practices on healthcare utilization patterns, noting that cultural factors can act as barriers or facilitators to accessing healthcare services. Similarly, (Baah, Teitelman, & Riegel, 2019), highlighted the role of cultural norms in shaping perceptions of illness and healthcare practices, particularly among marginalized populations in rural areas. (Mabetha, De Wet-Billings, & Odimegwu, 2021), found that cultural beliefs and practices surrounding childbirth and child-rearing significantly influence maternal healthcare-seeking behaviour in low-resource settings. They emphasized the importance of understanding and addressing these cultural factors to improve maternal and child health outcomes. Moreover, (Nguyen, Le Giang, Nguyen, Nguyen, & Lin, 2024), emphasized the link between maternal education and cultural beliefs, highlighting how education can empower women to challenge harmful cultural practices and make informed decisions about their health and the health of their children. In light of these findings, interventions aimed at promoting MCH service utilization among rural women must take into account the cultural context in which healthcare decisions are made. Culturally sensitive approaches, such as community-based education programs and the involvement of traditional birth attendants and community leaders, can help address cultural barriers and promote the importance of accessing MCH services.

Conclusion

In conclusion, this study sheds light on the factors influencing maternal and child health (MCH) service utilization among rural women in Ogun State, Nigeria. The findings underscore the importance of education, access to healthcare facilities, socio-economic status, and cultural beliefs in shaping healthcare-seeking behaviour. To improve MCH outcomes, targeted interventions must address these multifaceted determinants and promote equitable access to quality healthcare for all rural women and children. Collaboration among stakeholders is essential to implement effective strategies that address the diverse needs of rural communities.

Recommendations

Based on the conclusion, the study therefore gives the following recommendation based on the findings:

1. Invest in the expansion and improvement of healthcare infrastructure in rural areas to increase the availability and accessibility of MCH services.
2. Implement mobile healthcare clinics or outreach programs to provide essential MCH services to remote and underserved communities.
3. Develop and implement policies aimed at reducing financial barriers to healthcare access, such as subsidizing healthcare costs for low-income families or providing health insurance coverage.
4. Implement educational programs and campaigns to promote maternal health literacy and empower women with knowledge about maternal and child health practices.
5. Provide incentives for girls' education and vocational training to increase literacy rates among women in rural communities, thereby enhancing their ability to make informed decisions about healthcare utilization.
6. Engage community leaders, traditional birth attendants, and religious leaders in promoting modern healthcare practices and encouraging women to seek timely and appropriate MCH services.
7. Implement systems for monitoring and evaluation to ensure the effective delivery of MCH services and the attainment of desired health outcomes.

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