

# Correlates of Primary Healthcare Services Utilization among Women in Rivers East Senatorial District, Rivers State: Application of the Theory of Planned Behaviour

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Article History	Abstract
Original Research Article	<i>Primary healthcare provides basic and essential services to individuals and families globally. Despite its relevance, its utilization remains suboptimal. This research focused into the correlates of primary healthcare services utilization among women in Rivers East Senatorial District, Rivers State. Three research topics and hypotheses guided the investigation. A descriptive correlational research design was adopted with a population consisting of 133,545 women in Rivers East Senatorial District. The sample size of 1596 was selected using a multistage sampling procedure. Data was collected using a standardised questionnaire that had a reliability coefficient of 0.80. The mean and Pearson Product Moment Correlation (PPMC) at the 0.05 alpha level were used for the analysis. The result revealed that, utilization of PHC services amongst women in Rivers East Senatorial District was determined highly by subjective norms (<math>2.83 \pm 0.83</math>) and attitude of health workers (<math>2.96 \pm 0.88</math>) except knowledge of primary health care services which had a low relationship (<math>r = 0.31</math>) with the utilization of PHC services among women in Rivers East Senatorial District. The result moreover demonstrated that there existed a noteworthy correlation between variables such as subjective norms (<math>N = 1549</math>, <math>r = 0.49</math>, <math>p = 0.00</math>), attitude of health workers (<math>N = 1549</math>, <math>r = 0.23</math>, <math>p = 0.00</math>) and primary healthcare services utilization among women in Rivers East Senatorial District. The result additionally demonstrated that there was no meaningful connection between knowledge of PHC services (<math>N = 1549</math>, <math>r = 0.31</math>, <math>p = 0.89</math>) and PHC services utilization among women in Rivers East Senatorial District. This study concluded that knowledge is not a significant factor to determine PHC services utilization and the correlates of PHC services utilization among women in Rivers East Senatorial District were identified as subjective norms, and attitude of health care workers. Among other things, it was advised that, women should prioritize their health over family and societal norms that are not favourable to their health.</i>
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## Introduction

Primary Healthcare is the foundation of all systems of healthcare, providing basic and essential services to individuals and families in the communities. Everyone in a community can get primary health care (PHC), which is a vital medical service based on socially acceptable and scientifically sound practices and technology. It emphasizes active involvement from community members in both its execution and decision-making aspects (Bath & Wakerman, 2015). According to Behera and Prasad (2022),

the objectives of PHC are categorized into three core domains: empowering individuals and communities, advancing policy and action across various sectors, and linking primary care with crucial public health services. Together, primary health care and public health measures form foundation on universal health systems. For women, whose health needs ranges from reproductive health and maternal care to family planning and preventive services, understanding the factors that shape their behavioral

intentions is key to designing effective interventions. Tena et al. (2024) highlighted critical on significance of behavioral intention on predicting actual behavior, asserting that individuals are more likely to take action when they possess a strong intention to do so. The authors also suggest that three fundamental factors attitude towards the behaviour, perceived behavioural control, and subjective norms have an impact on behavioural intention. Exploring these factors is vital to gaining insight into the cognitive and motivational drivers behind women's health-related decisions.

Guerin and Toland (2020) emphasized the significant role of subjective norms in shaping health behaviors, noting that when people feel supported and accepted by others, they are more likely to take behaviours that promote their health. Subjective norms referring to social pressures and expectations from family, friends, and society also have a major effect on women's behavioral intentions concerning the utilization of primary healthcare (PHC) services (Wali et al., 2025). In the context of women's utilization of primary healthcare (PHC) services, understanding how these social norms function offers valuable insight into the societal and interpersonal factors that can either motivate or deter women from accessing timely and appropriate healthcare services. Women's health behaviors are often shaped by cultural and societal norms, and subjective norms offer a valuable framework for examining how these external influences affect their healthcare choices (Opara et al., 2024). Kiriakidis (2016) suggested that individuals having a keen awareness of control are more likely to form clear behavioral intentions and consistently follow through on them. Perceived behavioral control described as a person's confidence in their capacity to execute a particular behavior is a main predictor of actual engagement in PHC services.

Individuals who possess sufficient knowledge about health benefits are more inclined to adopt health-promoting behaviors (Michaelsen & Esch, 2023). This is specifically relevant in the context of women's primary healthcare (PHC) utilization, where awareness of the value of preventive care, reproductive health, and maternal services plays a significant role in influencing healthcare-seeking decisions. Numerous findings indicated a positive relationship among health literacy and the utilization of preventive healthcare services, highlighting the critical role of knowledge in shaping behavior. A key component of providing health care services is knowledge or understanding (Samuel & Ogar, 2024). According to Poureslami et al. (2017), knowledge and understanding are essential elements of effective healthcare delivery, revealing both existing gaps in health education and opportunities for designing targeted interventions. Several

studies reiterated that the utilization of PHC is influenced by subjective norm and knowledge (Egbewale & Odu, 2013). Nevertheless, in Nigeria, statistics showed that 31.8% of the women had not utilized the primary health care facility (Opeyemi et al., 2023), revealing that despite the Government's effort to ensure higher access to achieve the "health for all" initiative, a substantial proportion is still left out. This is disheartening considering the effects poor utilization of these services have on the populace. The term "attitude towards the behaviour" describes a person's general assessment of a particular behaviour, therefore, engaging with PHC services, positive attitudes are likely to lead to stronger behavioral intentions (Seong & Bae, 2022). Research has further shown that positive attitudes toward preventive healthcare play a major role in shaping individuals' intentions to access health services. Gaining insight into women's attitudes in this regard is crucial for identifying the factors that influence their readiness to seek timely and appropriate care. Sheeran et al. (2016) emphasized the important role of attitude in predicting health behaviors, noting that individuals who hold positive views toward preventive healthcare are more likely to adopt health-promoting practices. Efforts to improve PHC utilization have included awareness campaigns and infrastructure improvements, but these initiatives often fail to address the deep-rooted socio-cultural barriers comprehensively hence this study investigated the correlates of PHC services utilization among women in Rivers East Senatorial District, Rivers State. The following research questions served as the basis for this investigation:

1. What is the relationship between the knowledge of PHC services and PHC services utilization among women in Rivers East Senatorial District, Rivers State?
2. What is the extent to which subjective norms constitute a determinant to PHC services utilization among women in Rivers East Senatorial District, Rivers State?
3. What is the extent to which attitude of healthcare workers constitute a determinant to PHC services utilization among women in Rivers East Senatorial District, Rivers State?

### **Hypotheses**

This investigation was guided by the following hypotheses:

1. There is no significant relationship between knowledge of PHC services and primary healthcare services utilization among women in Rivers East Senatorial District, Rivers State.
2. Subjective norms and the use of primary healthcare services by women in Rivers State's Rivers East Senatorial District do not significantly correlate.

3. In Rivers State's Rivers East Senatorial District, women's use of primary healthcare services is not significantly correlated with the attitudes of healthcare professionals.

## Methodology

One of the three senatorial districts of Rivers State, Rivers East, is where the study was conducted. Emohua, Etche, Ikwerre, Obio-Akpor, Ogu-Bolo, Okirika, Omuma, and Port Harcourt are among its eight local government areas. With a population of 133,545 and a sample size of 1596 women, a descriptive cross-correlational study design was employed. The sample size was determined using the Taro Yamene formula ( $N / 1 + N(e)^2$ ). The 1,596 sample for the study was chosen using a multi-stage sampling technique. First, a cluster sampling used to group the senatorial district into four clusters based on their cultural similarities (Cluster 1 – Obio/akpor and Port Harcourt; Cluster 2 –

Etche and Omuma; Cluster 3 – Ikwerre and Emohua; Cluster 4 – Okrika and Ogu/bolo). One LGA was chosen at the second stage from each cluster, which includes Port Harcourt, Emohua, Okrika, and Etche, using a straightforward random sampling procedure. Two communities were chosen from each Local Government at the third stage using a straightforward random sample procedure. The fourth step involved choosing responders from the chosen communities using a straightforward random sampling method. The Correlates of Primary Healthcare Services Utilisation (CPHSU) instrument, which has a reliability coefficient of 0.80, was used to collect the data. All statistical analyses were supported by the Statistical Product for Service Solution (SPSS) version 27.0. Statistical tools such as mean and standard deviation were used to answer the research questions, and Pearson Product Moment Correlation (PPMC) was used to assess the hypotheses.

## Results

**Table 1: Pearson Correlation showing relationship between knowledge of PHC services and PHC utilization among women in Rivers East Senatorial District.**

Variables		Utilization	Knowledge	Remark
Utilization	Pearson correlation	1	.31	Low relationship
	n	1549	1549	
Knowledge	Pearson correlation	.31	1	
	n	1549	1549	

**Guide: 0.00-0.19= very low, 0.20-0.39= low, 0.40-0.59=moderate, 0.60-0.79=high, 0.80 above= very high relationship.**

The result in Table 1 revealed the Pearson Correlation of relationship between knowledge of PHC services and PHC utilization among women in Rivers East Senatorial District, Rivers State. The outcome revealed a poor association with a correlation coefficient of  $r = 0.31$ . As a result, there was little correlation between women's PHC use and their awareness of PHC services in Rivers State's East Senatorial District.

**Table 2: Mean and Standard deviation showing extent to which subjective norms constitute a determinant to PHC services utilization among women in Rivers East Senatorial District.**

S/N	Items	Mean	SD	Decision
1	Services rendered in PHC are okay.	3.55	0.68	High extent
2	Utilize the PHC facility because relatives recommended it.	3.14	0.67	High extent
3	Native treatment is better than medical treatment.	1.86	0.92	Low extent
4	PHC facility is for the poor.	2.33	0.89	Low extent
5	Does not care about going for treatment in the facility because something must kill a man.	3.26	1.01	High extent
Grand Mean		2.83	0.83	High extent

**Criterion Mean: 2.50**

The result Table 2 demonstrated the degree to which subjective norms constitute a determinant to PHC services utilization among women in Rivers East Senatorial District, Rivers State. The grand mean of  $2.83 \pm 0.83$  was the outcome, which is greater than the criteria mean of 2.50 indicating a high extent. Specifically, utilizing PHC facility because relatives recommended it had a high extent  $3.14 \pm 0.67$ ; services rendered in the PHC were okay also had a high extent  $3.55 \pm 0.68$ . Thus, the extent to which subjective norms determines PHC services utilization among women in Rivers East Senatorial District was high.

**Table 3: Mean and Standard deviation showing the extent to which the attitude of health workers constitute a determinant to PHC services utilization among women in Rivers East Senatorial District.**

S/n	Items	Mean	SD	Decision
1	Healthcare workers at the PHC uses harsh words while attending to the patients.	3.49	0.62	High extent
2	PHC workers have empathy and are friendly in delivering their services.	2.31	0.80	Low extent
3	Health care providers are very careful when attending to pregnant women.	2.44	0.95	Low extent
4	The nurses and community health workers in the PHC facility are disrespectful	3.25	0.99	High extent
5	Unapproachable attitude of the healthcare providers discouraged me from utilizing the services.	3.30	1.05	High extent
<b>Grand Mean</b>		<b>2.96</b>	<b>0.88</b>	<b>High extent</b>

**Criterion Mean: 2.50**

Table 3 demonstrated the degree to which the attitude of health workers constitute a determinant to PHC services utilization among women in Rivers East Senatorial District, Rivers State. The outcome exposed a grand mean of  $2.96 \pm 0.88$ , which surpasses the criteria mean of 2.50 representing a high extent. Specifically, healthcare workers at the PHC uses harsh words while attending to the patients had a high extent  $3.49 \pm 0.62$ ; unapproachable attitude of the healthcare providers discouraged me from utilizing the services also had a high extent  $3.30 \pm 1.05$ . Thus, the extent to which the attitude of health workers constitute a determinant of PHC services utilization among women in Rivers East Senatorial District was high.

**Table 4: Pearson Correlation analysis showing relationship between knowledge of PHC services and primary healthcare services utilization among women in Rivers East Senatorial District.**

Variables		knowledge of PHC services	PHC utilization	Decision
<b>Knowledge of PHC services</b>	Pearson correlation	1	0.31	$H_0$ accepted
	Sig.		0.89	
	n	1549	1549	
<b>Utilization</b>	Pearson correlation	0.31	1	
	Sig.	0.89		
	n	1549	1549	

**\*Not significant;  $p > 0.05$**

The Pearson Correlations analysis of the association between women in the Rivers East Senatorial District's use of primary healthcare services and their awareness of PHC services is shown in Table 4. The findings show no statistically significant relationship between becoming aware of PHC services and using them ( $p > 0.05$ ;  $N = 1549$ ,  $r = 0.31$ ,  $p = 0.89$ ). Consequently, the null hypothesis, which asserted that there was no significant relationship between women in Rivers State's Rivers East Senatorial District, and their use of basic healthcare services and their knowledge of PHC services, was not rejected.

**Table 5: Pearson Correlation analysis showing relationship between subjective norms and primary healthcare services utilization among women in Rivers East Senatorial District.**

Variables		subjective norms	utilization	Decision
<b>Subjective norms</b>	Pearson correlation	1	0.49	$H_0$ rejected
	Sig.		0.00*	
	n	1549	1549	
<b>Utilization</b>	Pearson correlation	0.49	1	
	Sig.	0.00*		
	n	1549	1549	

**\*Significant;  $p < 0.05$**



The Pearson Correlations study of the association between women's use of primary healthcare services in the Rivers East Senatorial District and subjective norms is shown in Table 5. Subjective norms and PHC service utilization were shown to be statistically significantly correlated, with a p-value of less than 0.05 ( $N = 1549$ ,  $r = 0.49$ ,  $p = 0.00$ ). As a result, the null hypothesis which claimed that there was no meaningful connection between women's use of basic healthcare services in Rivers East Senatorial District, Rivers State, and subjective norms was rejected.

**Table 6: Pearson Correlation analysis showing relationship between attitude of health workers and primary healthcare services utilization among women in Rivers East Senatorial District.**

Variables		attitude of health workers	health utilization	Decision
Attitude of health workers	Pearson correlation	1	0.23	$H_0$ rejected
	Sig.		0.00*	
	n	1549	1549	
Utilization	Pearson correlation	0.23	1	
	Sig.	0.00*		
	n	1549	1549	

**\*Significant;  $p < 0.05$**

The Pearson Correlations analysis of the association between women's use of primary healthcare services in the Rivers East Senatorial District and the attitudes of healthcare professionals is shown in Table 6. The findings showed a statistically significant ( $p < 0.05$ ) relationship between health workers' attitudes and PHC service utilization ( $N = 1549$ ,  $r = 0.23$ ,  $p = 0.00$ ). Thus, the null hypothesis which maintained that there was no significant relationship between the opinions of medical professionals and women's usage of basic healthcare services in Rivers State's Rivers East Senatorial District was refuted.

## Discussion of Findings

The conclusions of the investigation revealed a low relationship ( $r = 0.31$ ) between knowledge of PHC services and the PHC services utilization among women in Rivers East Senatorial District. The finding was not surprising because though, knowledge is a prerequisite of any health care services utilization but it does not always translate to practice, hence the low influence. This finding was not in concordance with the research conducted by Egbewale and Odu (2013) in a South-Western Nigerian semi-urban community who reported that one of the major reasons cited for non-utilization were poor understanding of the PHC system (50.7%). In Odeda Local Government Area, Ogun State, Richard and Kio (2021) found that 82% of women of childbearing age said they knew a lot about primary health care services. This indicates that the respondents knew a lot about primary health care services. Additionally, it was found that knowledge of PHC services has a significant impact on the use of primary health care services by women of reproductive age ( $t$ -value = 5.808,  $f(1,365) = 6.356$ ,  $p$ -value = 0.000). The results of the study also showed that among women in the Rivers East Senatorial District, there

was no significant correlation between PHC utilisation and knowledge of PHC services ( $N = 1549$ ,  $r = 0.31$ ,  $p = 0.89$ ).

In the Lagun village in Lagelu Local Government Area of Oyo State, Nigeria, According to Opeyemi et al. (2023), there is no statistically significant relationship between healthcare facility utilization and knowledge ( $X^2 = 1.000$ ,  $df = 1$ , and  $p = 0.257$ ). These findings were similarly consistent with those of their study. The homogeneity of the study area may be the reason for the consistency of the results from previous and current research. The results differed from a study conducted by Abazie et al. (2019) amongst expectant mothers in Nigeria's Lagos State's rural communities. The study found a significant correlation ( $X^2 = 89.14$ ;  $df = 1$ ;  $p$  value = 0.00) between pregnant women's perceptions of the benefits of using delivery services and their knowledge of them in rural PHCs in Lagos State. Additionally, the study of Samuel and Ogar (2024) among adults in rural communities of Benue State who revealed that the degree of knowledge and use of healthcare among adults was high. The difference discovered between the current investigation and the earlier ones could be influenced by the dissimilarity in the location of the studies.

The findings of the study revealed overall mean ( $2.83 \pm 0.83$ ) is greater than criteria mean of 2.50, which indicated that the extent to which subjective norms determines PHC services utilization among women in Rivers East Senatorial District was high. This result was expected because significant others such as family and friends, societal opinions plays a major role in people's choices or decisions including health care service utilization. This result is consistent with research conducted in Anambra State, Nigeria, by Ugwu and Okpala (2024), which found that 40.7% of respondents said that cultural beliefs rarely play a

role in their reluctance to seek medical attention. The results were comparable to those of Egbewale and Odu (2013), who found that poor comprehension of the PHC system (50.7%) and a lack of cultural access (55.2%) were factors that hindered the use of PHC services in a semi-urban community in South-Western Nigeria. Richard and Kio (2021) revealed that women's perception of PHC significantly ( $t\text{-value} = 4.505$ ,  $f(1,365) = 6.326$ ,  $p\text{-value} = 0.000$ ) influenced their utilization of primary health care services. The finding of the study also revealed a significant relationship between subjective norms ( $N = 1549$ ,  $r = 0.49$ ,  $p = 0.00$ ) and primary healthcare utilization among women in Rivers East Senatorial District. This result was also in correlation with the findings of Ugwu and Okpala (2024) in Anambra State, Nigeria who disclosed a significant relationship ( $df = 4$ ;  $x^2 = 79.6015$ ,  $p = 0.00$ ) between respondents cultural beliefs and their utilization of health care for mental health issues. This finding is also in line with the result from Agyemang-Duah and Rosenberg. (2023) in the Ashanti region of Ghana who revealed that Subjective norms and healthcare utilization were significantly and negatively correlated ( $\beta = -0.021$ ,  $IRR = 0.980$ ,  $95\% \text{ CI} = [0.961-0.998]$ ). The finding was related to the study of Samuel and Ogar (2024) among adults in rural communities of Benue state who revealed that health care use was significantly by cultural beliefs ( $3.01 \pm 1.18$ ). The same characteristics of the study population may be the reason for the correlation between the results of this study and those of earlier research.

Findings of the research revealed the grand mean ( $2.96 \pm 0.88$ ) is greater than the criteria mean of 2.50, which indicated that the extent to which the attitude of health workers constitute a determinant of PHC services utilization among women in Rivers East Senatorial District was high. The finding was anticipated because friendly attitude of health workers can attract its utilization of services and unfriendliness can discourage the use of the services. This findings was similar to the findings of Samuel and Ogar (2024) among adults in rural communities of Benue state who revealed that the usage of health care services was significantly influenced by the attitude of health professional ( $3.14 \pm 1.26$ ). This outcome was also connected to findings carried out in Enugu state by Ugochukwu et al. (2022), which found that the perception of insufficient health care personnel was associated with a higher likelihood of using PHC services ( $AOR = 0.3$ ,  $95\% \text{ CI } 0.1 \text{ to } 0.5$ ). According to Agofure and Sarki's (2017) findings in the Jaba Local Government Area of Kaduna State, Nigeria, staff attitudes were the primary driver of PHC utilization in that area ( $AOR=1.114$ ,  $95\% \text{ CI}=0.527-2.355$ ). According to Richard and Kio's (2021) survey, 315 (85.8%) of the reproductive-age women in the Odeda Local Government Area, Ogun State, felt that primary healthcare

professionals do not help patients with their attitude. The study's findings also showed a strong correlation between women's primary healthcare utilisation in the Rivers East Senatorial District and the attitudes of health professionals ( $N = 1549$ ,  $r = 0.23$ ,  $p = 0.00$ ). Abdulaziz et al. (2022) among adult residents in KSA reported that most of the respondents found the health care staff to be inadequate ( $AOR = 0.3$  ( $95\% \text{ CI } 0.2 - 0.5$ )). The results corroborated those of Igwe et al. (2014), who studied women's access to primary health care services in Orumba North Iga, Anambara State, Nigeria, and found that over half of the respondents (64.6%) cited poor attitude of healthcare professionals as the primary consideration when choosing whether to use PHC services. Given that both studies used descriptive cross-sectional data, the parallels between the earlier research and the current one may be explained by the study design's correlations.

## Conclusion

This study holds strongly that, knowledge is not a significant factor to determine PHC services utilization and the correlates of PHC services utilization among women in Rivers East Senatorial District were identified as subjective norms, and attitude of health care workers and which are major constructs of this theory of planned behaviour.

## Recommendations

1. Ministry of Health and Non-governmental health organizations should intensify health campaigns in improving women knowledge and increase utilization of these services in the facility.
2. Women should prioritize their health over family and societal norms that are not favourable to their health.
3. Health workers should emphasis on the dangers of cultural inclinations to the women during their hospital visits such as Antenatal.
4. Servicom services should be intensified in health care facilities to make healthcare workers portray positive and friendly attitude towards patients.
5. Government and Health Management Directors should develop a mechanism to penalize health care workers with poor attitude towards their patients.

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