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Research Article

Service Users' Perspectives on Healthcare Quality in Rural Northern Ghana: A Cross-Sectional Mixed Methods Study

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ABSTRACT

Background: Despite improvements in healthcare access and utilization among various populations around the globe, factors responsible for individual decisions to seek healthcare services vary with different populations and geographical context. The study aimed to examine service users' perspectives on the satisfaction with quality of healthcare delivery services they receive at healthcare facilities and its effect on their decision to access and utilize healthcare services.

Methods: Using a cross-sectional survey and two separate focus group discussions (comprising 6 persons in each group), as well as an in-depth interview of three healthcare managers, data were collected from 401 respondents in selected communities in the Bole District of the Northern Region of Ghana using a questionnaire. The survey data were analyzed using Pearson correlation and logistic regression in SPSS version 21 while qualitative data were analyzed and synthesized using content analysis.

Results: The results of the study revealed that 31% of the respondents were dissatisfied with the healthcare services' delivery. Using a Pearson Correlation analysis, respondents' satisfaction with healthcare services delivery was significantly associated with an individuals' health insurance status (P = 0.00), distance to health facility (P = 0.01), treatment procedures (P = 0.00), and personal factors such as educational level (P = 0.00). The logistic regression model, $\chi^2 = 7.003$, P<.0005, explained 25.2% (Nagelkerke R2) of the variance in users' satisfaction with healthcare service delivery and correctly classified 79.1% of cases. Staff attitude was associated with 2.5 times likelihood of users being satisfied while increased distance was negatively associated with having satisfactory healthcare service delivery. Qualitative data collected pointed to poor staff attitude toward patients, poor diagnostic measures, and unavailability of medications as factors affecting their satisfaction with the quality of healthcare provided in the district.

Conclusions: A third of the study population (31%) in the district were not satisfied with the healthcare services delivery. Proper supervision and refresher training for health staff on quality healthcare delivery, and adequate provision of essential drugs and consumables could improve the patients' satisfaction with healthcare services delivery and utilization.

KEYWORDS

Patients' Perspectives, Healthcare Quality, Service User's Satisfaction, Healthcare access, Healthcare Delivery.

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Background

Healthcare access is an essential component of human development, but a significant number of people around the world, especially in developing countries, do not have access to healthcare as they require. Consequently, the World Health Organization (WHO) and other actors in healthcare are adopting strategies to promote Universal Health Coverage (UHC) especially in lower and middle-income countries such as Ghana [1]. UHC seeks to ensure that all people have access to quality healthcare without incurring major financial burden, this is required to maintain and improve health [1].

Patients' satisfaction is a multi-faceted issue which is affected by several determining variables such as quality of healthcare services which can result in patients exhibiting loyalty as a positive behaviour when receiving care or otherwise. In spite of the difficulty in quantifying the amount of patients' satisfaction and the quality of care rendered to clients by healthcare organizations, nonetheless, multi-disciplinary methods involving the combination of both patient inputs and the judgment of care givers can be used to generate an approach for their estimation [2].

Globally, many studies have sought to give meaning to the issue of patients' satisfaction and the quality of healthcare services. For instance, while assessing patients' satisfaction with quality of healthcare in remote regions in India, the authors maintained that clients' satisfaction is an essential approach to examine how healthcare services are utilized by different people which implicitly relate to the quality of the services. They further indicated that due to several reasons, such as long waiting time at health facilities, the cleanliness and convenience at the health facilities, as well as the privacy of patients maintained during treatment. Many clients prefer the services of private organizations to the services of public healthcare service organizations [3].

In a study examining the quality of hospital services in Eastern Ethiopia, Abdosh (2006) observed that assessing the healthcare quality from the perspective of patients provides avenue for obtaining essential information concerning the quality of care given to patient, which leads to making decisions and policies that makes health service more responsive to patients. In the said study, it was revealed that, 46% of the respondents were dissatisfied with the healthcare services rendered, also, among the factors that were significantly associated with satisfaction were the availability of medications, waiting time, payment status of clients and their house location [4].

Ayimbillah et al. (2011) estimated a multiple regression model and concluded that patients' perception of the waiting time in the facility is a critical factor predicting patients' satisfaction with healthcare delivery in Ghana. Positive patients-provider relationship, waiting time, communication, and the hospital environment are key factors influencing patients' perception on quality of healthcare [5].

Also, studies have shown that perceived quality of healthcare is dependent on health insurance status [6], but the perception of the insured people are not the same. Robyn et al. (2013) concluded that community-based health insurance patients perceived better quality of care. In contrast, health insurance enrolment had a significant negative effect on the perception on healthcare quality [7].

The quality of healthcare rendered to patients at the healthcare facilities in the Bole district remains a subject of paramount interest in the domain of healthcare services provision and utilization. Because, the Bole District having recorded two institutional maternal mortalities amidst several anecdotal evidence of poor healthcare service delivery in the district have not had any research study to prove or disprove that assertion [8].

Despite varied attempts to examine the satisfaction of healthcare clients to enable appropriate measures to be put in place to improve healthcare delivery, information on users' satisfaction with healthcare service delivery is scanty globally, especially in developing countries like Ghana. Hence, the purpose of this study was to assess patients' satisfaction with the healthcare services delivery in the Bole district and the factors that determine patients' satisfaction with healthcare services rendered.

This studies contribution to knowledge includes not only helping healthcare managers in the Bole district and other rural areas to know patients' views regarding satisfaction with healthcare service delivery but also serves as empirical data that could guide rural healthcare managers in decision making as well as serving as basis for further research on user satisfaction with healthcare services rendered.

Methods

Research Design

The cross-sectional mixed method design including phenomenological approach was used to determine quality of healthcare services delivery and factors associated with patients' satisfaction with the healthcare rendered to them in the Bole District of the Savannah region of Ghana. We used qualitative technics such as focus group discussion, observations, face-to-face in-depth interviews with health care users and selected healthcare personnel to collect data for analysis. After analyzing the quantitative and qualitative data obtained, a triangulation approach was used to integrate both the quantitative and qualitative results to ensure the final results of the study were balanced and complete [9,10].

Setting of the Study

The study was carried out in the Bole district of the Savannah region of Ghana because there is little or no known scientific evidence of users' perspectives on satisfaction of health care delivery and use, to the best, of our knowledge. Notwithstanding, there was anecdotal evidence showing that community members in the district had grave concerns with the healthcare services delivered to them.

The Bole district lies in the western corridor of the Savannah region, it shares boundary to the north with the Sawla-Tuna Kalba district, to the south with the Tain, Kintampo North and Kintampo South districts, to the west with West Gonja and Central Gonja districts and the La Cote D'Ivoire to the east. The district covers a land area of 10,500sq km. [8]. The Population of the Bole District in the year 2016 per the 2010 population census projections was 71,059 with an estimated annual growth rate of 2.8%. The district's population is spread to over 167 communities. Most of the communities are located along the Bamboi-Wa and the Bole-Chache road that leads to the La Cote D'Ivoire [11].

At the time the study was conducted, there were twenty-two health facilities in the Bole district, made up of one (1) district hospital, seven (7) health centers, one (1) clinic, and thirteen (13) functional Community-Based Health Planning Services (CHPS) compounds. Also, with the exception from the Bole Reproductive and Child Health (RCH) Clinic, thus the St. Martyrs of Uganda health centre, which is a CHAG institution, all the other health centers offer 24 hours services. The main referral point for healthcare in the district is the Bole Hospital which also serves beyond the borders of the country into the neighboring La Cote D'Ivoire. With the Wa Regional Hospital as the main referral facility for patients from the Bole Hospital. Access to healthcare in remote settlements and rural areas is supplemented by outreach services [8].

Study Population

The study population comprised adult respondents above eighteen (18) years of age, male and female, living in the Bole district. The adult population was selected since they are more likely to have had experience about access and use of healthcare services in the district hence their views and suggestions on ways of improving healthcare satisfaction in the district were obtained. In addition, three healthcare managers were interviewed for in-depth understanding of some of the health issues in the Bole District.

Sampling Technique and Sampling Size

Systematic sampling method was used to select respondents who were mainly adult community members residing in the district who have received healthcare in the Bole district in the past six months. The systematic sampling method was used because it ensures reduction in the potential for human bias in the selection of cases to be included in the sample [12].

The areas selected for the study included the Bole, Bamboi, and Jama communities all located in the Bole district. Some respondents who were not present at home were traced at various places such as markets, schools, streets, and health facilities to get their views. A total of four hundred and one (401) responses were successfully obtained out of the four hundred and thirty-five (435) questionnaires which were issued to respondents representing a response rate of 92%. The high response rate obtained could be attributed to the effort by the researchers aimed at tracing respondents to markets and other public spaces when and where it was feasible.

In addition, three health professionals in management positions in the district were interviewed using in-depth interview guide for their views on factors affecting satisfaction with healthcare delivery in the district and measures required to improve upon them and help better understand health issues in the Bole District.

Determination of Sample Size

Sample size decision was informed by Yamane (1967) simplified version formula for proportion. At 95% confidence interval and P = 0.05, the formula is given as:

$$n = \frac{N}{1 + Ne^2}$$

Where: n = sample size; N = population size (adult population) and e = level of precision (5%).
Given N (adult population) of the Bole district of 39,281, and e = level of precision of 5%.

Projected population of Bole district per 2010 population and housing census is 71059, with an adult population of 55.28% [11].

The estimated sample size is as follows:

$$n = \frac{39281}{1 + 39281(0.05)^2} = 396$$

Therefore, the estimated sample size for Bole District was 435 after adding 10% of the calculated sample size to cater for non-response as done in previous studies [13].

Data Collection and Analysis

Quantitative data collection

The study employed the cross-sectional mixed method involving quantitative techniques and phenomenological approach, which allowed us to assess patients lived experience of the health care system. The quantitative part involved a sample size of 401 respondents. A cross-sectional survey of respondents was conducted using a structured questionnaire, a semi-structured in-depth interview guide and focus group discussion (FGD) guide. The structured questionnaire used for the study comprised four sections. The first section asked questions concerning the demographic characteristics of the respondent, the second section asked questions on users' satisfaction with quality of healthcare services delivery, while the third and fourth sections looked at accessibility and utilization of healthcare services as well as challenges and suggestions for improvement respectively.

Qualitative data collection

The qualitative part also comprised in-depth interviews with three selected management members of health facilities in the Bole district to elicit their views on healthcare delivery in the Bole district, the challenges people face in accessing and using healthcare services in the Bole District and measures that can help improve healthcare access in the Bole District.

A focus group discussion (FGD) was conducted for men and

women separately at Jama a sub-district community in the Bole district. The FGD was made up of six (6) men in one group and six (6) women in the other group, to establish in detail the challenges in accessing healthcare, satisfaction with the healthcare services as well as the improvement measures for healthcare delivery in the Bole district from the community members' perspectives. The views expressed in the in-depth interviews and FGD discussions were transcribed and coded into predetermined and emergent themes for analysis.

The in-depth interview guide used asked open-ended questions on issues such as, what types of health systems are currently available in the Bole District? Which of the health systems do you work under? How many health facilities are operating currently in the Bole District? As well as in your view how does staff-patient relationship affect patient satisfaction with healthcare delivery in the district?

Other open-ended questions asked during the interviews include how does the health insurance status of clients affects patient satisfaction with healthcare delivery in the district? What challenges affect community members' healthcare access in the Bole District in your view? And what measures can help to improve patient satisfaction with healthcare delivery in the Bole district in your view?

The Focus Group Discussion (FGD) centered on issues such as; how does demographic features such as; religion, health insurance status, and location of residence affect individual's satisfaction with healthcare delivery in the Bole district.

What measures can help improve satisfaction with healthcare delivery in the Bole District? How does health-facility based factors such as drugs (medications) availability, consumables availability, and staff-patient relationship as well as waiting time at health facility, affect community members' satisfaction with healthcare delivery in the district? As well as the main challenges of utilization of healthcare services and measures that can help improve healthcare utilization in the Bole district from the community members' perspective.

Among the instruments which were used during the data collection processes are, a laptop computer for audio recording and data analysis, pens and A4 sheets for transcribing, mobile phones for communication purposes.

Validity and Reliability

The questionnaire used for the collection of data for the study as well as the in-depth interview guide, and the focus group discussion guide were pre-tested in a nearby district, the Sawla Tuna Kalba district, to check the validity and reliability of the data collection tools. The data collection was carried out in three parts, the first part dealt with administering questionnaires with the sample respondents.

The second part involved a FGD of two different groups (male and female) in the Jama community in the Bole district, and the third part involved in-depth interview of three (3) healthcare managers in the Bole District for their views on user satisfaction with healthcare services delivery, perceived quality, and utilization of healthcare services in the Bole District.

Data Analysis and Results

The quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) version 21. To establish the relationship between user satisfaction with healthcare services and factors affecting healthcare delivery, a Pearson Correlation test and logistic regression model were used to test the findings at the 0.05 level of significance.

The qualitative data were recorded with an electronic recorder and transcribed. Interviews and discussions held in the local language were translated and transcribed in English language. Themes were then developed and coded from the responses of the in-depth interviews and the focus group discussions based on the main objectives of the study.

Ethical Considerations

The District Director of Health Services, and the Assemblymen of the study areas gave approval and permission for respondents within their jurisdiction to be interviewed. Respondents were not required to state their name for the purpose of anonymity and were assured of their utmost confidentiality. Informed consent was required before respondents could partake in the study after the purpose of the study had been explained to them. This was done by asking respondents to sign a consent form, thumbprint or give verbal consent because some respondents could not read or write. All the respondents who were interviewed, however, gave their prior consent by either signing the consent form for the study or giving verbal consent. All the study protocols and tools including procedures on consent to participate were conducted in accordance with the standards of the Institutional Review Board (IRB) of the University of Ghana (UG), Legon, Ghana.

Table 1 below presents the results of the demographic characteristics of respondents.
Majority of respondents were at the young age group.

Quantitative Results

Satisfaction with quality of healthcare services delivery

Respondents were asked to indicate whether they were satisfied with the healthcare services rendered to them in the health facilities in the district. Out of the 401 responses obtained for the study, 276 respondents representing 68.8% indicated they were satisfied with the quality of healthcare services delivery in the Bole District. Whilst 125 respondents representing 31.2% stated they are not satisfied with the quality of healthcare services delivery in the Bole District.

Table 1: Demographic characteristics of Variables (N = 401).

Variables	Response Trait	Frequency (%)
Age (years)	18-29	261 (65.1)
	30-39	88 (21.9)
	40-49	31 (7.8)
	50-59	12 (3)
	60 and above	9 (2.2)
Gender	Male	234 (58.4)
	Female	167 (41.6)
Educational level	No education	37 (9.2)
	Primary	44 (11)
	Secondary	178 (44.4)
	Tertiary	142 (35.4)
Employment status	Employed	271 (67.6)
	Unemployed	130 (32.4)
Marital status	Single	233 (58.1)
	Married	151 (37.7)
	Divorced/widowed	17 (4.2)
Religion	Christianity	186 (46.6)
	Islamic	200 (49.9)
	Traditional	15 (3.7)
Income level	Less than 500Ghs	234 (58.3)
	500-1000Ghs	89 (22.2)
	More than 1000Ghs	78 (19.5)
Distance to nearest health facility	Less than 1km	210 (52.4)
	1-5km	127 (31.7)
	Above 5km	64 (16)

The results of the Pearson Correlation test showed that, at the 0.05 precision level, health insurance status (p-value = 0.00), distance to health facility (p-value = 0.01) treatment procedures such as diagnostic measures, X-ray (p-value = 0.00), as well as personal factors such as belief system and level of education (p-value = 0.00), were significantly associated with respondents satisfaction with the healthcare services delivery as all the variables had p-values less than 0.05. (p-value <0.05). Indicating statistically significant relationship between the above variables and user satisfaction (See table 2).

Table 2: Correlation matrix of patients' satisfaction with healthcare services and selected variables.

Variable	n (%)	χ^2	P-value
Health insurance status	62 (15.36)	28.370	0.000
Distance to facility	88 (21.96)	9.749	0.008
Treatment and Process (Drugs, Diagnostic procedures e.g. X-ray)	162 (40.36)	36.309	0.000
Personal factors (E.g.: Educational level and belief system)	89 (22.32)	20.069	0.000

Note: significance level = 0.05, n = frequency

A logistic regression was performed to ascertain the effects of Distance to health facility, Health Insurance Status, Staff attitude and gender on the likelihood that participants would be satisfied with the healthcare service delivery. The logistic regression model was statistically significant, $\chi 2$ = 7.003, P<.0005. The model explained 25.2% (Nagelkerke R2) of the variance in satisfaction with healthcare service delivery and correctly classified 79.1% of cases. Staff attitude was associated with 2.5 times likelihood of a community member being satisfied while distance was negatively associated with having satisfactory healthcare service delivery. (See table 3, 4, 5).

Table 3: Model summary of patients' satisfaction with healthcare services.

	-2Log likelihood	*Cox and Snell R Square*	*Nagelkerke R Square*
Model I[a]	**367.612**[a]	**.168**	**.252**

Model I: Binary logistic regression of predictors of patients' satisfaction with healthcare services

Table 4: Classification Table [a].

Observed		Predicted		
		Satisfaction with healthcare		% Correct
		Yes	No	
Satisfactory with healthcare	Yes	283	22	92.8
	No	62	34	35.4
Overall Percentage				79.1

Table 5: Binary logistic regression analysis of predictors of patients' satisfaction with healthcare services.

Variables in the Equation	Model I			
	B (SE)	Wald	OR [95%-CI]	P-value
Distance (Ref= >5km)	-.386(.173)	4.068	1.417(1.010 – 1.988)	0.044
Health Insurance status (Ref=Insured)	-.386(.417)	.858	.680(.300 - 1.539)	.354
Staff Attitude (Ref=Positive attitude)	.894(.123)	52.708	2.446(1.921-3.114)	.001
Gender (Ref = Males)	.218(.263)	.687	1.244(.742-2.085)	.407
Constant	-4.986(.694)	51.543	0.007	.001

Abbreviation: B: Unstandardized regression coefficient, SE Standard error, OR Odds ratio, CI Confidence interval, Ref Reference category.

Model I: Binary logistic regression analysis of predictors of Patients' satisfaction with healthcare services.

Qualitative results

Factors affecting satisfaction and quality healthcare from respondents' perspective

The respondents were asked to state the factors that they encounter when accessing or using healthcare services which tend to affect their satisfaction. Using open ended questions, the various findings were summarized and categorized into six themes, the following are selected expression of respondents under the various themes.

High cost of Healthcare services

Respondents had limited financial protection and access to essential health care despite having health insurance. The respondents did

not mince words on their lived experience with the health care system:

"Even though the health insurance scheme was supposed to improve our access to healthcare, in reality, it has not improved our ability to use the health center since we are still required to pay for some services"

"There should be reduction in the cost of healthcare, especially to avoid extorting money from patients with or without health insurance even if they will still collect."

Drugs and transportation to referral facilities

Shortage of drugs and long distance to referral centers coupled with poor access roads and lack of Ambulances and appropriate transportation affected health care utilization and patients' satisfaction of health care delivery in the district:

"They often complain of shortage of drugs at the health facility, even last week I went for weighing but there was no medicine at the facility, so they just weighed the children and we went back home.

"The long distance to referral points [health facilities] affects access to healthcare, for example some people are sometimes unable to raise enough money to go to either Bole District Hospital or Wenchi Methodist Hospital to seek for healthcare when they are referred."

Poor staff attitude, favoritism and poor emergency response

Patients were dissatisfied with poor staff attitudes coupled with poor emergency response to patients' care.

"Poor attitude of health providers is also a big challenge to us; they do not show respect to their patients and like referring patients unnecessarily"

"Some people are given preferential treatment while others are not given enough attention when we go to the hospital"

Inadequate human resources are mostly in the remote rural areas, especially shortage of midwives, and poor sanitation at the health facilities were also reported.

"Sometimes you will get to the health center or clinic only to realize that there is no staff at the facility."

"Some of the health facilities are not clean at all especially during raining season, the place does not look nice at all"

Consequently, the respondents who were interviewed suggested the urgent need to establish new health facilities in the remote areas, and upgrade of the existing ones, especially health centers into polyclinics to reduce the time and distance community members cover to access health care. They also think adequate supply of drugs, consumables and important healthcare logistics such as new x-ray machines and other modern equipment for laboratory tests, would improve user satisfaction of healthcare services in the district.

"Laboratory services should be provided at the clinic to ensure proper diagnosis."

"*There should be renovation, expansion and refurbishment of healthcare facilities with enough equipment's and logistics to reduce referral of patients from the sub-districts to the district capital"*

After conducting a Focus Group Discussion (FGD) and the In-depth Interviews, **c**ommunity members who participated in the FGD disclosed that their rights as patients have often been trampled on and would therefore want health personnel in the health facilities of the district and their referral centers to treat them with compassion, respect for patients' privacy and confidentiality, as well as with human dignity. They also suggested that public education of community members on health issues, especially their benefits and responsibilities of the National Health Insurance Scheme (NHIS) about medications and services covered by the scheme could improve patients' satisfaction with the healthcare they receive.

On access and utilization of healthcare FGD participants indicated that the satisfaction with the healthcare services provided influences their perception of the quality of care and their health seeking behaviors. Whereas good health care staff attitude encourages community members to seek health care, they specified that poor staff attitude discourages their quest to seek healthcare even when they need it most, as vividly expressed by the female participants:

"Some health workers use harsh words [intemperate language] on us [patients] and our relations which makes accessing healthcare in the health facilities uncomfortable. Some of them have no respect for patients, they shout at us and they do not respect our privacy and confidentiality of our information. We want the health workers to treat us with compassion and dignity." Community member in the Bole district

Shortage of drugs, consumables and other logistics in health facilities, were some of the devastating factors that impede access and quality of healthcare delivery in the district. Healthcare managers in the Bole district confirmed the situation:

"Right now, we are short of consumables and drugs but because we are owing our suppliers, they do not want to give us more supplies, the NHIS too is not paying our claims regularly, hence we need to agree with the patients to pay something to support us run the health facility"-Healthcare manager in the Bole district

The qualitative findings obtained through the focus group discussions and the in-depth interviews corroborated findings from the quantitative results.

Discussions

Community members' perceptions about the quality of services they receive in the first place largely depends on the availability of health care services including, health care personnel, medicines, and consumables. Many studies on access and utilization of healthcare among rural residents show that while most rural dwellers can access and use primary health care services, they usually have inadequate access and utilization of secondary healthcare facilities and the services they provide [14,15,16].

Findings of this study confirms the previous studies by Odetola (2015) and Bennett et al. (2013), and further reveal that although community members in the Bole District can easily access and use

primary healthcare facilities such as the CHPS compounds and some health centers, most health care consumer in the district have to travel long distances to access secondary healthcare facilities such as a policlinic and a hospital. This situation is further compounded by bad roads, lack of appropriate means of transportation and ambulances for referral which worsens the healthcare access and delivery, resulting in delays in seeking for healthcare, complications and many deaths, especially pregnant women.

Our findings also suggest that consumers with health insurance coverage are more likely to use healthcare in the district, contingent on the availability of healthcare services with perceived quality. Only thirty-five percent (35%) of consumers without any health insurance cover accessed and used healthcare services. This finding agrees with the findings of several previous studies which suggest that enrolling in health insurance scheme has positive effect on an individuals' healthcare access and utilization [17–20].

The study suggests that there is a negative effect of increasing distance to healthcare facilities on satisfaction with healthcare service delivery. This supports assertions by other studies which also found that long distance to health facilities decreases patients' satisfaction and utilization of healthcare services. Having covered long and devastating travel to the health facilities for care, a slightest increase in waiting time could spark dissatisfaction and perception of quality of poor care [21–23].

This finding also corroborates the results of the focus group discussions:
"I must spend more time and money to travel all the way to Bole [the district capital] before I can see a doctor and do x-ray. It is even more devastating when you get there, and the doctor is not available, and you have to go back or travel to the nearby regional capital city for the appropriate care"

Satisfaction with care provided for an individual had a significant relationship with access and utilization of healthcare (p-value = 0.000) at the 0.05 significance level. This was further supported by the results of open-ended questions on determinants of respondents' healthcare access and utilization as respondents representing 40.26% indicated their satisfaction with the healthcare provided for them determines whether they would access and utilize services of a healthcare facility. This assertion was earlier established by Wairiuko, (2014) who stated that users' level of satisfaction with the service provided at a healthcare facility has a significant relationship with the user's access and utilization of the healthcare services.

Various studies such as WHO, (2017) support these findings as the organization enumerate educational level among factors influencing access to healthcare. The significant relationship (with a p-value of 0.000 at 0.05 precision level) between educational level and healthcare access and utilization is also reiterated by the findings of other studies such as Wairiuko, (2014).

On community members' perspectives on challenges and improvement measures for satisfaction with healthcare services delivery, the views of community members on the challenges posed by financial constraints due to high cost of services, drugs and transportation to healthcare facilities have been earlier upheld by findings of studies conducted by JHCECHD, (2017) and Wandera, Kwagala, & Ntozi, (2015) who posited that people with low socio-economic status usually do not have adequate satisfaction with healthcare services. This position was further reiterated in a study by an international healthcare organization, the WHO (2017), which indicated income level and socioeconomic status of an individual as a major determinants of their satisfaction and access to healthcare services [24,25].

Wairiuko, (2011) in a study assessing the determinants of healthcare accessibility also revealed a significant relationship between users' satisfaction with the healthcare service delivered to them, which is premised on issues bothering the way patients are attended to by health staff. In line with the above literature, the respondents raised complaints such as poor staff attitude regarding poor communication, favoritism for some clients and poor emergency response as some of the issues affecting their satisfaction with the healthcare services rendered to them. For instance, a respondent complained:
"They [health staff] are very slow in attending to patients, their emergency responds are also poor and they don't seem to have respect for human beings"- a community member at Bole.

Consequently, a senior health manager in the district who preferred to remain anonymous when asked about staff-patient relationships in the Bole district admitted that occasionally there have been disagreements between health staff and patients, their relatives or care takers. But in such cases the unit head of the facility usually settles the dispute and it's only when the issue is beyond the immediate unit head that it is brought to the attention of the senior managers. She further added that there are suggestion boxes in some facilities to solicit the views and grievances of healthcare users to improve healthcare delivery in the district.

Inadequate human resources have been reported to be an affront to effective delivery, access and utilization of healthcare services. The findings of this study and existing empirical literature on satisfaction with healthcare services such as Uneke, et al., (2017), and the Bole District Health Directorate Annual Performance Review, 2016 reiterated this issue [8,26].

Physical observation of the healthcare facilities in the district showed that many were in deplorable conditions. This observation was further emboldened by the views of community members in the focus group discussion. They described the deplorable nature of healthcare facilities in the district coupled with poor sanitation, erratic supply of consumables such as rolls plaster, syringe and needles, and intravenous giving sets as well as inadequate diagnostic equipments and laboratory services. Healthcare managers in the district confirmed the deplorable nature of healthcare facilities

but attributed it largely to inadequate funding for renovation and construction of new facilities.

Conclusion

There were unmet users' satisfaction with healthcare services delivery in some rural areas in the Bole district at the time the study was conducted. The evidence shows factors such as treatment procedure, distance to health facilities, health insurance and personal factors were significantly associated with users' satisfaction. Staff attitude was associated with 2.5 times likelihood of users being satisfied with healthcare services while distance to health facility was negatively associated with having satisfactory healthcare service delivery. There is the need for effective supervisory measures to be put in place at healthcare facilities to improve positive health staff attitude. Putting a more efficient healthcare referral system, provision of a 24-hour Ambulance service, while adequately and constantly supplying essential medicines to the primary health care centers could improve access to health care service in the district.

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Authors' contributions

All authors conceived and designed the study, MA collected data for the study and was the major contributor in writing the manuscript; SGA and MA analyzed and interpreted the data. All authors reviewed, discussed the results, and proofread the final manuscript for publication.

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