

Factors affecting the utilization of village health teams' services among the residents of Agulu division, Apac district. A cross-sectional study.

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Abstract

Background:

Village Health Teams (VHTs) are community-based health workers responsible for delivering basic preventive and promotive health services at the household level. This study assessed the factors affecting the utilization of Village Health Team services among residents of Agulu Division in Apac District.

Methodology:

A quantitative descriptive cross-sectional study design was used. The study was conducted among residents of Agulu Division, Apac Town Council, Apac District. Data collection lasted ten days. Completed questionnaires were checked for completeness and analyzed using Microsoft Excel. Results were presented in the form of frequency tables, figures, and percentages.

Results:

Most of the respondents were female (62%), aged 18–27 years (36%), and had primary level education (44%). More than half of the respondents (56%) were unaware of the services provided by VHTs. Most respondents (76%) doubted the ability of VHTs to manage illnesses, and 68% were not satisfied with the services offered. Community-related factors included lack of consideration of cultural norms (64%) and long distance to VHT residences, with 38% reporting distances greater than 5 km. Service provider factors included uncertainty about confidentiality (58%), inconsistent supply of drugs and logistics (84%), and negative attitudes such as use of abusive language (52%).

Conclusion:

Utilization of VHT services in Agulu Division is influenced by personal, community, and service provider factors. Low awareness, lack of confidence in VHT competence, cultural concerns, long distances, poor confidentiality, inconsistent logistics, and negative attitudes among VHTs significantly affect service utilization.

Recommendations:

The Ministry of Health should strengthen training of VHTs on ethics, communication, and confidentiality, while ensuring a consistent supply of drugs and logistics. The APAC District health authorities should recruit more VHTs and increase community sensitization about VHT services to improve their utilization.

Keywords: Village Health Teams (VHTs), Utilization of Health Services, Community Health Workers, Health Service Utilization, Agulu Division, Apac District.

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Background.

Village health team (VHT) is a non – political health implementing structure responsible for offering health care services to community members at household levels (Katisgazi et al., 2022). The term VHT is synchronous with community health workers used in other countries, and it was created in 2001 to decentralize health care services to community levels, especially those with inaccessibility to health care services (Aluma & Bbee, 2021). The primary responsibility of VHTs is to offer preventive services, contact tracing of sick individuals, referral of sick patients,

community health status, and treatment of minor disorders like flu and malaria (Olaniran et al, 2021).

Globally, the utilization of VHT services ranges from 15% in developed countries to 76% in developing countries (WHO, 2020). In developed countries like India, VHTs are adequately paid, which motivates them to extend comprehensive services to communities couple with an adequate supply of logistics and support supervision (Ogotu et al., 2021). In developing countries like Bangladesh and Peru, community health workers are underutilized by 67% of the community, yet they have poor health care systems, affecting the improvement of the health status of the

community (USAID, 2020). The gaps in utilization of VHT services arise from the gaps in the supply chain of logistics for VHTs, the busy schedules of community members, and inaccessibility challenges (Park et al., 2022). In Sub-Saharan Africa, 60% of the population lives in rural and remote areas where VHTs are the alternative cost – effective health services providers to health facility-based services (Saint- Firmin et al, 2021). Despite this demand, less than 32% of VHTs are adequately utilized, affecting the efforts towards reducing the morbidity and mortality rates in the community (Ndu et al, 2022). Community members are unable to utilize VHTs' services because they are afraid of the maintenance of privacy and confidentiality, lack of motivation for VHTs, negative attitudes of service providers, and use of traditional treatment remedies (Olaniran et al, 2021).

In Kenya, utilization of VHTs has achieved remarkable progress in the improvement of health care services by 21% through increased referral of sick children, vaccination, and treatment of minor conditions (Living Goods organization, 2023). This is because VHTs are adequately supervised by health workers, provided with necessary logistics and adequate community sensitization about the services, which has boosted the use of the services (Ogutu et al., 2023). In Uganda, 30% of the VHTs have abandoned their responsibilities, especially in urban areas, affecting the utilization of the essential health care services they provide (Pandya et al., 2022). Functionality and utilization of VHTs have been affected by logistic shortages, unawareness about their services in the community, and a negative attitude of community members about the services (Katisgazi et al., 2022). The underutilization of VHT services has led to continued high prevalence of preventable childhood illnesses like diarrhea, malaria, and low uptake of preventive measures, which has affected the attainment of the third sustainable development goal (Namuyanja, 2022). This study assessed the factors affecting the utilization of Village Health Team services among residents of Agulu Division in Apac District.

Methodology.

Study design.

The study adopted a quantitative descriptive cross-sectional design. The design was chosen because it was cheap and required little time to collect the data. Quantitative data collection involved the use of numerical values to assess information.

Study setting and rationale.

The study was conducted in Agulu Division, Apac Town Council, Apac District. Apac District is located in northern Uganda, bordered by Oyam District to the northeast, Kole District to the north, Lira District to the northeast, Dokolo District to the east, Amolatar District to the south, Nakasongola District to the southwest, and Kiryandongo

District to the west. It is about 230 kilometers north of Kampala Capital city. The community is dominated by Lang-speaking people engaged in subsistence farming of tobacco, cotton, simsim, maize, beans, sunflower, potatoes, cassava, groundnuts, small-scale retail business, and others. The study area was selected because it had experienced low utilization of VHT services in the community.

Study population.

The study population was residents of the Agulu division.

Sample size determination.

The study assumed the use of a 95% confidence interval, a 5% margin of error, and an estimated population of 133 households that were accessible during the study period.

The sample size was calculated using Yamane's formula.

$$n = \left[\frac{N}{(1 + Ne^2)} \right]$$

Where:

n = the sample size required,

N = the number of accessible respondents admitted (133)

e = the margin of error in the calculation (5%)

$$N' = \left[\frac{N}{(1 + Ne^2)} \right] = \left[\frac{133}{1 + (133 \times 0.05^2)} \right] = 100.$$

The study involved only 100 respondents.

Sampling procedure.

The study used a systematic sampling method. The method was selected because data collection was done over a large area, hence required a method that eliminated biases within. The sampling procedure involved determining the interval by dividing the total population of the community by the sample size ($133/100 = 1.3$, approximately 1). This implied that the researcher skipped an interval of one (1) approximately one house from the first household that was selected, and then the consecutive respondents were selected by skipping one household 1st, 3th, 5th, 7th, This was repeated until a sample size of 100 respondents.

Inclusion criteria

The study included only residents of Agulu division aged above 18 years who had consented to participate in the study voluntarily.

Exclusion criteria

Visitors in the community, those who are below 18 years, and those who had not consented were excluded from the study.

Study variables

Independent variables

The independent variables of the study were factors affecting

Dependent variable

The dependent variable of the study was utilization of VHT services.

Research Instrument.

A structured questionnaire was used to collect data from respondents. The questionnaire was divided into four sections: demographic characteristics, individual factors, community-related factors, and service provider-related factors. This comprised closed-ended questions written in English and verbally translated into local languages.

Data Collection Procedures

After proposal completion, the researcher sought an introductory letter from the Principal of Florence Nightingale School of Nursing and Midwifery. The letter was taken to the chairperson of the Agulu division, who gave permission to the researcher to collect the data in the community. The researcher explained the purpose and procedure of data collection to the respondents. The data was collected using structured questionnaires. Literate residents filled out the questionnaire alone, with clarification from the researcher where they did not understand. Those who were unable to read were involved by asking them questions by the researcher as laid down on the questionnaire as she filled in the responses they gave. The process took a period of ten days, involving ten respondents every day.

Data Management and Analysis.

The questionnaires were first checked for completion, correction of mistakes, and editing on each of the day to

avoid missing information after losing contact with the respondent. Questionnaires were put in an envelope and put in a shelf whose keys were personally kept by the researcher. Analyzed data on the computer was protected from access by using a password.

Data was presented in the form of frequency tables, figures, graphs, and charts using the Microsoft Excel program.

Quality Assurance.

The validity of the tool was ensured by developing it based on a literature review and study objectives with close supervision by the research supervisor.

Reliability of the tool was attained by pretesting it among five residents of Agulu division who were involved in the study, and all errors identified were rectified immediately.

Ethical considerations

The proposal was presented to the Florence Nightingale School of Nursing and Midwifery for approval. The principal gave the researcher an introductory letter that was used to obtain permission from the chairperson of the Agulu division. Data collection began by introducing and explaining the topic and objectives to the respondent. Informed consent was obtained from all the study respondents; confidentiality was ensured throughout as respondents were not allowed to write their names on the questionnaire. Questionnaires were kept safe by the researcher.

Results.

Demographic Characteristics.

Table 1: showing demographic Characteristics (n = 100).

Variable	Responses	Frequency (f)	Percentage (%)
Gender	Female	62	62
	Male	38	38
Age	18 – 27 years	36	36
	28 – 37 years	28	28
	38 – 47 years	22	22
	>47 years	14	14
Education level	No formal education	26	26
	Primary education	44	44
	Secondary education	24	24
	Tertiary education	6	6
Marital status	Married	72	72
	Not married	28	28
Employment status	Unemployed	82	82
	Employed	18	18

Source: Primary Data 2025

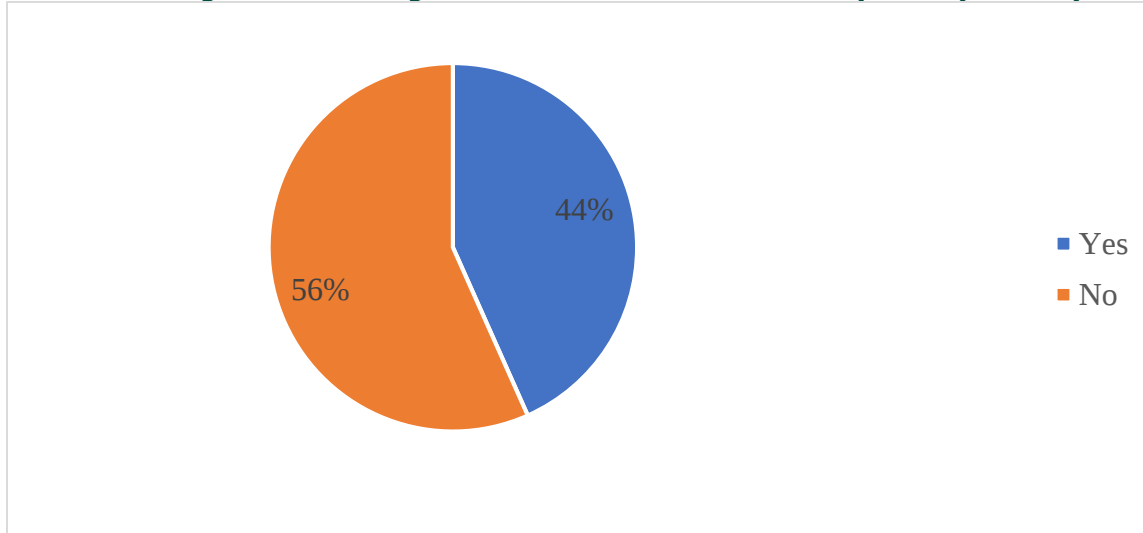
Table 1 shows that the majority of the respondents, 62(62%), were female, while a minority, 38(38%) were male. Most of the respondents, 36(36%), were aged 18 – 27 years, while the least, 14(14%), were aged above 47 years. Most of

the respondents, 44(44%), had attained primary education, while the least 6(6%) had tertiary education. The majority of the respondents, 72(72%), were married, while a minority, 28(28%), were not married. Most of the

respondents 82(82%) were unemployed, while the least, 18(18%), were employed.

Personal factors affecting the utilization of VHT services among the residents
Figure 1: showing awareness of services offered by VHTs (n = 100)

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Source: Primary Data 2025

Figure 1 shows that most of the respondents, 56(56%), were unaware of the services offered by VHTs, while the least, 44(44%), were aware of the services offered by VHTs.

Table 2: showing personal factors affecting the utilization of VHT (n=100)

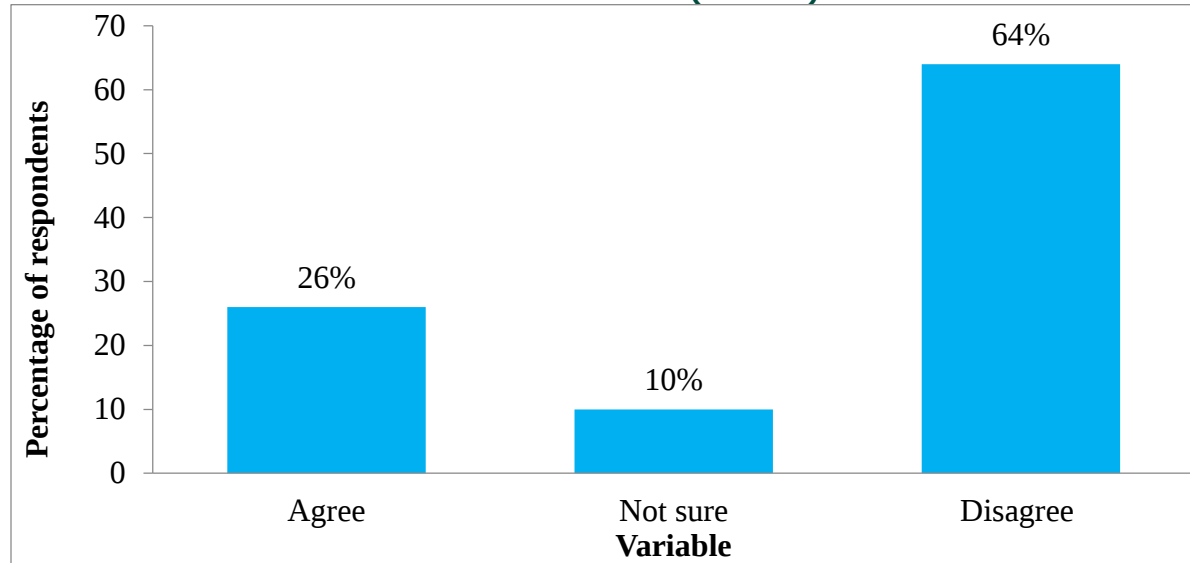
Variable	Responses	Frequency (f)	Percentage (%)
VHTs are capable of managing patients' illnesses	Agree	22	22
	Not sure	2	2
	Disagree	76	76
Individuals who encourage patients to seek services from VHTs	Family members	10	10
	Friends	34	34
	Religious leaders	8	8
	No one encourages	48	48
Chronic diseases experienced by respondents	Diabetes	4	4
	Hypertension	12	12
	None	84	84
Satisfaction with services offered by VHTs	Very satisfied	20	20
	Satisfied	12	12
	Not satisfied	68	68

Source: Primary Data 2025

Table 2 shows that the majority of the respondents, 76(76%), disagreed that VHTs are capable of managing patients' illnesses, while a minority, 2(2%), were not sure. Most of the respondents, 48(48%), were not encouraged by anyone to seek services from VHTs, while only 8(8%) were encouraged by religious leaders. The majority of the

respondents, 84(84%), did not have any chronic diseases that required monitoring by VHTs, while a minority, 4(4%), had diabetes. Most of the respondents, 68(68%), were not satisfied with the services offered by VHTs, while the least 12(12%) were satisfied.

Community factors affecting the utilization of VHT services among the residents
Figure 2: showing whether services offered by VHTs take into consideration cultural and traditional norms (n = 100)



Source: Primary Data 2025

Figure 2 shows that most of the respondents, 64(64%), disagreed that services offered by VHTs took into consideration cultural and traditional norms, while the least 10(10%) were not sure.

Table 3: showing various community factors that affect utilization of VHT services (n = 100).

Variable	Responses	Frequency (f)	Percentage (%)
VHTs are able to communicate in local languages	Agree	100	100
	Not sure	0	0
	Disagree	0	0
Presence of alternative service providers like clinics, drug shops, and hospitals	Yes, and very near	16	16
	Yes, but very far	70	70
	No	14	14
Awareness of the family and educational background of VHTs	Yes	72	72
	No	28	28
Distance from home to VHT's residence	Less than 2 kilometers	32	32
	2 – 5 kilometers	30	30
	More than 5 kilometers	38	38

Source: Primary Data 2025

Table 3 shows that all respondents 100(100%) reported that VHTs are capable of communicating in local languages. Most of the respondents, 70(70%), had alternative service providers like clinics, drug shops, and hospitals, but were very far, while the least 14(14%) never had alternative service providers. The majority of the respondents, 72(72%), were aware of the family and education

background of the VHTs, while a minority, 28(28%), never knew the family and education background of the VHTs. Most of the respondents, 38(38%), reported that VHTs were living at a distance of more than 5 kilometres from their residence, while the least 30(30%) mentioned 2 – 5 kilometres.

Service providers' factors affecting the utilization of VHT services among the residents
Table 4: showing confidentiality, stocking, workload, attitude, and skills of VHTs (n = 100)

Variable	Responses	Frequency	Percentage (%)
VHTs keep secrets	Agree	24	24
	Not sure	58	58
	Disagree	18	18
VHTs are regularly stocked with necessary drugs and logistics	Always	2	2
	Sometimes	84	84
	Never	14	14
Workload at the VHT in the community	Little	66	66
	Moderate	22	22
	Heavy	12	12
Attitude of VHTs	Approachable and welcoming	36	36
	Use abusive language	52	52
	Do not spare time for us	12	12
Rating skills of VHTs in the community	Very skilled	4	4
	Skilled	18	18
	Somehow skilled	40	40
	Not skilled at all	38	38

Table 4 shows that most of the respondents, 58(58%), mentioned that VHTs were not sure whether VHTs keep secrets, while the least 18(18%) disagreed. The majority of the respondents, 84(84%), reported that VHTs sometimes were stocked with necessary drugs and logistics, while a minority, 2(2%), mentioned that VHTs are always stocked with necessary drugs and logistics. Most of the respondents, 66(66%), reported that VHTs had little workload, while the least 12(12%) mentioned that VHTs had a heavy workload. The majority of the respondents, 52(52%), mentioned that VHTs use abusive language, while a minority, 12(12%), reported that VHTs never spared time for them. Most of the respondents, 40(40%), believed that VHTs are somehow skilled, while the least 4(4%) mentioned that VHTs are very skilled.

Discussion

Socio-demographic characteristics

The study showed that the majority of the respondents (62%) were female. This was because the community was dominated by female individuals, many of whom are likely to need services from VHTs.

Most of the respondents (36%) were aged 18 – 27 years. This was because the country's demographic profile is largely made up of the youth; therefore, VHT services should be designed to meet the needs of youth.

Most of the respondents (44%) had attained primary education. This was because of high school dropout rates; communities were uninformed of the benefits of utilizing services offered by VHTs.

Personal factors affecting the utilization of VHT services among the residents

The study found that more than half of the respondents were unaware of the services offered by VHTs. This was due to a lack of public sensitization about the services offered by VHTs; they are unaware of when they should visit VHTs. On the contrary, a study by Muhumuza et al (2017) conducted in Kabarole District in Uganda found that a (49.1%) who knew that VHTs offer free mosquito nets and were engaged in utilizing these services. This implied that a lack of knowledge about VHT services affected the utilization.

More than three-quarters of the respondents disagreed that VHTs are capable of managing patients' illnesses. This was because the community members knew the educational background of VHTs, thus doubting their ability to manage their conditions without going through all the medical education courses. This disagrees with a study by Ndu et al. (2022) carried out in Africa, which reported that belief in the efficiency of services offered by VHTs was influencing the provision of VHT services. This meant that doubt in the capability of VHTs affected the use of the services.

Community factors affecting the utilization of village health teams' services

Study results reported that most of the respondents (64%) disagreed that services offered by VHTs took into consideration cultural and traditional norms. This could be because VHTs do not offer herbal medicine as recommended by traditional teaching, thus perceive them as non-cultural and considerate. On the contrary, a study by Ogutu et al. (2021) conducted in developing countries reported that cultural considerations during the provision of

health care services by VHTs were enhancing the regular utilization of services offered by VHTs. Therefore, VHT services should be designed with consideration of cultural beliefs and norms to enhance utilization.

All respondents reported that VHTs are capable of communicating in local languages. This was because VHTs were selected from the community, and therefore could speak the local language. This agrees with a study that revealed that the ability of VHTs to use native languages during community preventive campaigns enhanced understanding and involvement of community members in the use of the initiatives (Sharma et al, 2019). This implied that ease in communication with VHTs improved the utilization of VHT services.

Service providers' factors affecting the utilization of VHT services among the residents

According to study findings, more than half of the respondents were not sure that VHTs keep the secrets of patients. This led to the failure of patients to disclose some information to VHTs or sometimes to totally fail to utilize the services in fear of disclosing their information. This agrees with a study by Ogotu et al. (2021) carried out in low- and middle-income countries, which reported that lack of confidentiality among VHTs scared communities from utilizing the services offered by VHTs. This implied that a lack of confidentiality affected the uptake of services.

The study findings showed that the majority of the respondents (84%) reported that VHTs sometimes were stocked with necessary drugs and logistics. This was due to limited supplies offered to VHTs, which sometimes discourages patients from seeking their services, as they may not expect to find their necessary drugs and logistics. This is in line with a study by Aluma and Manyara (2021) done in Tororo District, Uganda, which found that 33% reported inconsistent supply of logistics and medication was hindering community members from utilizing VHT services. Therefore, the shortage of supplies affected the utilization of VHT services.

Slightly above half of the respondents mentioned that VHTs use abusive language. This was due to inadequate training on medical ethics and the inability to control emotions, thus abusive language, which scares community members from seeking the services. On the contrary, a study by Mariana (2019) conducted in Indonesia found that positive communication and welcoming behaviors of VHTs were enhancing the uptake of services they provide. This meant that the unethical behaviors of VHT affected the utilization of the services.

Conclusion

Personal factors that affected the utilization of VHT services were unawareness of services offered by VHTs, doubt in the ability of VHTs to manage their conditions, lack of

encouragement from family members and friends, as well as dissatisfaction with services offered by VHTs.

Community factors affecting the utilization of VHTs were a lack of cultural and traditional norm consideration during the delivery of services, awareness of the family and educational background of VHTs, and long distances to the residences of VHTs.

Service providers' factors affecting the utilization of VHTs were non- confidentiality, inconsistent availability of necessary logistics, and use of abusive language.

Limitation of the study

The study used a cross-sectional study design whose generalization to the entire target population might be inapplicable.

The study did not enroll key informants like VHTs and health workers who might have had valuable information on the study.

Recommendations

The Ministry of Health should develop a training guide for VHTs so as to train the necessary medical ethics, such as confidentiality, privacy, and empathy. In addition, an adequate supply of logistics for VHTs should be implemented so as to address the inconsistent availability of logistics.

The Apac district health committee should recruit and deploy more VHTs in the villages so as to reduce the distances of VHTs from the places of residence of community members. In addition, the community should be sensitized about the services offered by VHTs so as to address the lack of awareness of these services offered by VHTs.

The VHTs should learn how to keep confidentiality and should be polite towards patients so as to attract them to utilize the services.

Community members are urged to focus on the services offered by VHTs, rather than on the education and family backgrounds of VHTs.

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List of abbreviations.

CHWs – Community Health Workers

MOH – Ministry of Health

SDGs – Sustainable Development Goals

USAID – United States Agency for International Development
VHTs – Village Health Teams
WHO – World Health Organization

Source of funding.

Page | 8 The study was not funded.

Conflict of interest.

There is no conflict of interest.

Availability of data.

Data used in this study are available upon request from the corresponding author.

Authors contribution.

FA designed the study, conducted data collection, cleaned and analyzed data, and drafted the manuscript.
RA supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.
DO supervised all the research process.
TMO supervised the entire research process.
LO supervised the research process.

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