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Proportion and factors influencing healthcare-seeking behavior among older people in Motta town, East Gojjam: a community-based cross-sectional study, Ethiopia, 2023

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Abstract

Background In resource-limited countries, older people who are at risk and face numerous health problems, often receive insufficient attention regarding their healthcare-seeking behavior. Assessing the proportion of healthcare-seeking behavior and associated factors among older people in Motta town, was the aim of the study.

Method A community-based cross-sectional study was carried out from April 22 to May 22, 2023. The study subjects were chosen using a systematic random sampling technique. To identify candidate variables for multivariable analysis, a bivariable logistic regression analysis was performed. Variables having a P-value of < 0.05 were considered statistically significant.

Results From the total, 161 (39.3%) of respondents had good healthcare-seeking behavior with 95% CI [35%, 44%]. Secondary school [AOR = 2.69, 95% CI = 1.27, 5.68], Education college and above [AOR = 4.6, 95% CI = 2.27, 9.33], Family support during their illness [AOR = 1.39, 95% CI = 1.05, 3.09], Members of CBHI [AOR = 2.02, 95% CI = 1.21, 3.36], and presence of chronic illness [AOR = 2.55, 95%, CI = 1.64, 3.97] were significantly associated with good healthcare-seeking behavior.

Conclusion and recommendation This study found that good healthcare-seeking behavior among older people is significantly associated with higher education, strong family support, Community-Based Health Insurance (CBHI) membership, and chronic illnesses. Improving health literacy through education, strengthening family support systems, expanding CBHI participation for better healthcare access, and developing targeted chronic disease management programs to enhance this behavior is recommended. These strategies can collectively improve healthcare utilization and outcomes for older people.

Keywords Healthcare-seeking behavior, Proportion, Older people, Motta town

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Introduction

The United Nations (UN) defines older people are people aged 60 years and above [1–3]. This is consistent with the Ethiopian official retirement age [4]. Because of advanced health interventions and improvements in socio-economic conditions, there has been a rapid increase in the global number of older people [4–6]. According to an estimate by the UN, in 1980, there were 378 million elderly people globally. This figure will rise to 2 billion by 2050, which is expected to contribute 16–22% of the global population. This increase indicates that nearly 80% of the world's elderly will live in less developed countries in 2050 [4]. In Sub-Saharan Africa, the number of older age groups increased from 37.1 million in 2005 to 155.4 million in 2050 [7]. According to Ethiopian estimates, the older population accounted for about 5% of the total population of 83 million in 2007 and will double to 9% by 2050 [8, 9].

Healthcare-seeking behavior (HCSB) is any activity undertaken or decision by individuals who perceive themselves to have a health problem or to be ill to find appropriate therapy [4, 10]. Healthcare-seeking behavior is crucial for early diagnosis, early healthcare utilization, effective treatment, and appropriate intervention implementation [11]. Healthcare-seeking behavior is highly influenced by socioeconomic, socio-demographic, and cultural factors. In addition, older people are influenced by underlying factors such as illiteracy, financial dependency, and loneliness, which increase the burden of the problem [12, 13].

Older people are the most population at risk of suffering from a variety of medical, psychological, and social issues. Older people frequently face unique health challenges, including different types of chronic diseases, mobility issues, and social isolation, which can affect their healthcare-seeking behaviors. Different scholars have highlighted the importance of addressing barriers such as socioeconomic status, accessibility to healthcare facilities, health literacy, and cultural beliefs to enhance healthcare utilization among the elderly [14, 15]. Furthermore, the COVID-19 pandemic has highlighted the urgent need to understand and support the healthcare needs of older people, who are disproportionately affected by the virus resulting in disruptions in healthcare systems [16].

Assessing the proportion of HCSB among older people in resource-limited countries is crucial for improving health outcomes and designing effective interventions [17].

Evidence of HCSB in older people indicates that different factors are associated with HCSB across the globe [18, 19]. In addition, other problems facing older people include poverty, unemployment, abuse, stigmatization, isolation, and depression, among other segments of the population [20–22]. By focusing on these areas, healthcare systems in resource-limited countries can better support their aging populations, ultimately improving their quality of life and reducing the burden on families and healthcare providers [23].

Despite the government of Ethiopia increasing healthcare facilities at all levels and increasing healthcare expenditure, little evidence indicates unsatisfactory healthcare-seeking behavior for the elders [24, 25]. Evidence from trend analysis shows that a high proportion of morbidity and mortality was reported among older people [26].

A community-based cross-sectional study in Motta Town will provide vital insights into these factors, allowing for the creation of targeted interventions to improve health outcomes and quality of life for older people in resource-limited countries. As a result, the purpose of this study is to determine the proportion of HCSB and the factors that influence this behavior.

Methods and materials

Study design, period, and setting

A community-based cross-sectional study was carried out from April 22 to May 22, 2023, at Motta town, East Gojjam, Amhara regional state, Ethiopia. The town has six kebele (a small administrative unit in Ethiopia [27]), one district hospital, and one health center. According to a local health administrative report, the town has a total population of 59,966; of these, about 2,414 are older people.

Populations, sample size, and sampling procedure

Those older people aged 60 and above, who had perceived illness and those residents in the area for at least six months before the survey were the source population and the study population, respectively. However, those who were critically ill, unable to respond, and living in religious places and streets were excluded from our study. The sample size was determined by using a single population proportion formula considering the following assumptions;

$n = \frac{(Z\alpha/2)^2 * P(1\text{-}P)}{d^2}$ Where, sample size (n), confidence interval (Z) at 95%, and a margin of error (d) (5%). P is taken from a previous study done in West Shoa showed that the proportion of healthcare-seeking behavior was 54% [8] $= \frac{(1.96)^2(0.54)(0.46)}{(0.05)^2} = 382.$

After adding a 10% for non-response rate the final sample size was 420 older people [28].

Before the main research, a three-day pre-survey was undertaken to determine the number of older people who experienced illness. Each Kebele household with one or more older people was considered a sample-frame household. The corresponding sample size was distributed proportionally among the framed households in each kebele.

The participants in the study were then picked from each household using a systematic random sampling method. The first household was chosen at random from the lists of each household on each kebele, followed by the subsequent household at four intervals. If the chosen household did not match the inclusion criteria, the following household was examined. If two or more older people match the inclusion criteria in the same family, one will be selected using a lottery method for the interview.

Every day, the trained health extension workers listed each household and labeled who was included in the data collection (Fig. 1).

Operational definition and measurements

Good HCSB was measured by asking questions that older people claimed sought healthcare in any health facility, hospital, health center, and private clinic other than alternative care like a religious place or holy water, traditional healer, and herbal medication for their illness [8, 13]. Self-reported chronic diseases were considered as "present" if any long-term illness such as cardiovascular disease, diabetes, renal disease, arthritis, HIV/AIDS, liver disease, etc. It was assessed with a question. Have you ever been diagnosed or informed by a doctor with one or more chronic illnesses? with the answer options, "yes "and "No" [29]. The self-rated severity of illness was measured by asking the participant how they rated the severity of their illness using a scale of severe, moderate, and mild [22].

Data were collected with pre-tested interviewer-administered questionnaires, which were adapted from different literature [8, 30, 31]. The questionnaire has three parts: socio-demographic and individual factors, self-care and health-related factors, and HCSB (Appendix I). The questionnaire was translated into the local language Amharic by language experts and translated back to English by another language expert to ensure its consistency.

Data quality assurance

Six diploma-level health extension workers were assigned to collect data, with one MSc nurse supervising. The two-day training was given to the data collector and supervisor on the purpose of the study, approach to the interviews, interviewing techniques, respect, and maintaining the privacy and confidentiality of the respondents. Before the actual data collection, a pre-test was done with a 5% sample size (with 32 old people) in Bichena town (the same setting but in a different place). During data collection, the supervisor was constantly observed and provided quick feedback to the data collectors.

Every day during data collection, the principal investigator and supervisor checked for and corrected mistakes, missing data, and discrepancies.

Data processing and analysis

The completed data were entered into Epi Data version 3.1 and exported to SPSS version 25 for analysis. Binary logistic regression analysis was done to identify variables significantly associated with the dependent variable. Then, variables with a P-value < 0.2 at bivariable analysis were taken as candidates for multivariable analysis. Finally, multivariable logistic regression analysis was

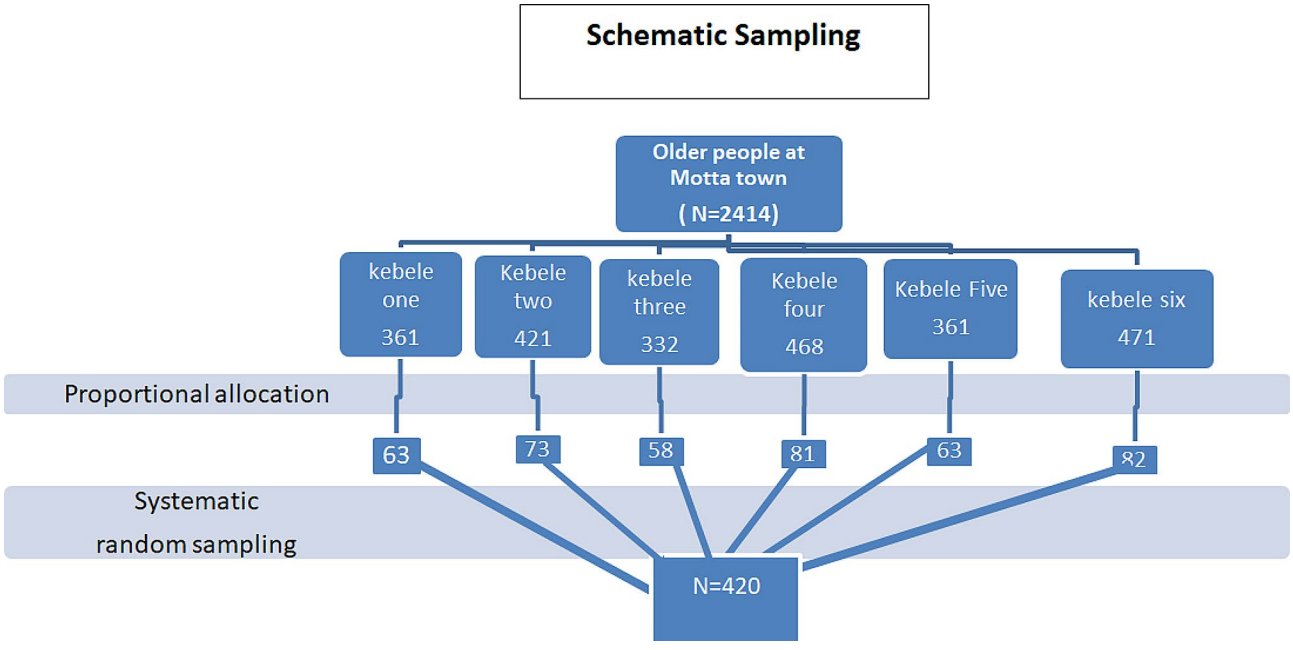

Fig. 1 Sampling procedure of the healthcare-seeking behavior among older people in Motta town, East Gojjam Zone, Northwest Ethiopia, 2023 ($n = 420$)

performed to control for the possible confounding effect of the selected variable and variables with a P-value < 0.05 were taken as statistically significant with healthcare-seeking behavior. An AOR with a 95% confidence interval (CI) was used to show the degree of association between the independent and outcome variables. Finally, the fitted multivariable logistic regression model's fitness was checked by Hosmer-Lemeshow goodness-of-fit, and it was 0.845.

Results

Socio-demographic and individual characteristics

A total of 412 older people with a response rate of 98.0% were included in the study. More than two-thirds (70.9%) of the respondents were within the age range of 60–69 years, with a mean age of 68 years and a standard deviation (SD) of 5.9. Two-thirds (62%) and (64%) of the respondents were male and orthodox followers, respectively. Almost seven out of ten (72%) of them were married, followed by widowed (14.6%). Two-fifths (42%) of the respondents couldn't read or write. Half (50.7%) of the respondents were retired and received pensions related to their occupation. Half (52%) of them have a monthly income greater than or equal to 1,170 ETB, with a median of 1299 and an interquartile range (IQR) of 1509 Ethiopian Birr. The majority (60.2%) of the respondents were living with their spouse. Around half (51.2%) of the respondents were not dependent on others when they got sick or ill with the disease. 299 (72.6%) of respondents were members of the community-based health insurance (CBHI) scheme. In addition, one-fourth (25%) of respondents have a 01-kilometer (km) distance from the health facility, with a mean and SD of 2.27 and 1.05 km, respectively (Table 1).

Self-care, health-related, and facility-related factors

Almost all (95.4%) of older people interviewed had been ill or had sought care within the previous year. Among those, one-third (31.1%) sought care in health facilities, while 41 (32.6%) preferred traditional healers. Two-fifths (39.1%) of older people have been diagnosed with at least one type of chronic illness. Almost half (47.8%) of older people with chronic illnesses had moderate feelings of severity, and two-thirds (66.5%) had more than one chronic disease. A large percentage (27.7%) of them exercised for at least 20 min each day. Furthermore, the majority (74%) and more than half (57%) of respondents were confident in receiving their preferred healthcare practitioner and medicine at the healthcare facilities, respectively (Table 2).

Proportion and factors associated with healthcare-seeking behavior

This study found that, 39.3% [95% CI = 35%, 44%] of older people engaged in good HCSB. Bivariate regression analysis revealed nine independent variables. The following factors had a P-value of < 0.2: sex, educational level, supportive family during illness, CBHI membership, having been ill for the last six months, being diagnosed with one or more chronic diseases by a health professional, 20 min of physical exercise each day, confidence in getting the preferred health service and turning back to seek advice from health facilities. In multivariable regression analysis, four variables were found to be significantly associated with healthcare-seeking behavior: increasing education, family support, CBHI membership, and the presence of a chronic illness.

Older people who completed secondary education were 2.69 times [95% CI = 1.27, 5.68] more likely to have good HCSB than those who couldn't read or write. Furthermore, those with a college degree or greater were 4.6 times [95% CI = 2.27, 9.33] more likely to have good HCSB than those who could not read and write.

Older people who had a supportive family during their illness were 1.39 times [95% CI = 1.05, 3.09] more likely to have good HCSB than those who did not. Furthermore, older CBHI members were 2.02 times [95% CI = 1.21, 3.36] more likely to have good HCSB than their counterparts.

Finally, older people with one or more chronic illnesses diagnosed by healthcare professionals were 2.55 times [95% CI = 1.64, 3.97] more likely to participate in good HCSB compared to those without chronic illness (Table 3).

Discussion

The relationship between HCSB and older people is complex and influenced by a variety of factors, all of which shape the likelihood of older adults participating in timely and appropriate healthcare utilization, consequently affecting their overall health outcomes and quality of life. With all of the obstacles, the load is particularly heavy in resource-limited countries.

According to this study, 39.3% of older people in Motta Town engaged in good HCSB. This finding is similar to research conducted in Western Ethiopia and Southwest Nigeria [8, 32]. This similarity could be attributed to possible reasons for the similar socioeconomic level, study design, and measurement tools. However, our findings are lower than those reported in Turkey, Malaysia, and three Ethiopian investigations [13, 20, 30, 31, 33]. The possible reason for this discrepancy might be variation in the study period, study population, and socio-economic and cultural variation. For example, if one study collects data over six months and another over one year, the

Table 1 Socio-demographic and individual characteristics of older people in Motta town, East Gojjam Ethiopia, 2023 ($n=412$)

Variables	Categories	Number	Percentage
Age in year (mean = 68, SD = 5.9)	60–69	292	70.9
	70–79	110	26.7
	>=80	10	2.4
Sex	Male	258	62.6
	Female	154	37.4
Religion	Orthodox	264	64.1
	Muslim	138	33.5
	Protestant	28	2.4
Marital status	Single	12	2.9
	Married	296	71.8
	Divorced	44	10.7
	Widowed	60	14.6
Education level	Can't read and write	174	42.2
	Can read and write	85	20.6
	Primary	63	15.3
	Secondary	39	9.5
	College and Above	51	12.4
Occupation	Employed	148	35.9
	Unemployed	55	13.3
	Retired & received pension	209	50.7
Monthly income in Ethiopian Birr (Median 1299, IQR = 1509)	< 1,170[a]	198	48.1
	>=1,170	214	51.9
Living Condition	Alone	42	10.2
	With spouse	250	60.7
	With children	120	29.3
Source of money during illness	Free care	81	19.7
	Selling agricultural product	32	7.8
	Saving	299	72.5
Supportive family during illness	Yes	81	19.7
	No	331	80.3
Dependent on others	Fully	56	13.6
	No	211	51.2
	Partially	145	35.2
Member of CBHI	Yes	299	72.6
	No	113	27.4
Approximate distance from nearest health facility (Mean 2.27Km, SD = 1.05)	1 km	103	25
	2 km	155	37.6
	3 km	111	26.9
	4 km	24	5.8
	5 km	19	4.7

Key: CBHI = Community Based Health Insurance, IQR = Inter Quartile Range, SD = Standard deviation, [a] = income group was just random

results might differ due to seasonal variations, changes in healthcare policies, or other time-related factors [34]. In addition, there might be variations in the commitment of implementers of health service utilization. The study population of this study was older people who perceived any illness in the past six months, but the study in Malaysia included illness in one year. In addition, a study in southwest Ethiopia found that people perceived illness in the household rather than in older people.

According to this study, older people with secondary school, college, or higher education are more likely to have good HCSB than those who cannot read and/or write. This finding is similar to previous research conducted in rural Western Maharashtra and South India [35, 36], Turkey, Iran, Nigeria, and Southern Ethiopia [4, 31, 32, 37]. One probable explanation is that educated older people are aware and know where and when to go to health facilities when illness or morbidity is perceived. They were to go to health facilities when illness or morbidity was suspected, even if they only attended for checkups [14]. Higher educational status significantly contributes to better healthcare-seeking behavior

Table 2 Self-care-related, Health-related, and facility-related factors among older peoples in Motta town, East Gojjam, Ethiopia,2023 ($n=412$)

Variables	Categories	Number	Percentage
Been ill or sick in the last year?	Yes	393	95.4
	No	19	4.6
What was done to treat illness ($n=393$)	Self –medicated	75	19. 1
	Treated at the health facility	128	31. 1
	Traditional healer	41	32.6
	Nothing done	149	17.2
Have chronic illness (at least one)	No	251	60.9
	Yes	161	39. 1
Severity of illness ($n=161$)	Sever	39	24.2
	Moderate	77	47.8
	None	45	28
Type of chronic illness ($n=161$)	Asthma	12	7.5
	Hypertension	21	13
	DM	18	11.2
	HIV/AIDS	3	1.9
	More than one Chronic disease	107	66.5
Done exercise at least 20 min per day	Yes	343	83.3
	No	69	16.7
Currently smoking cigarette	Yes	63	15.3
	No	349	84.7
Confident in getting preferred healthcare provider at the healthcare facilities	Yes	305	74
	No	107	26
Confident in getting medicine at the healthcare facilities	Yes	234	56.8
	No	178	43.2
Confident in getting adequate laboratories at the healthcare facilities	Yes	244	59.2
	No	168	40.8

Key: DM = Diabetes Mellitus, HIV/AIDS = Human Immuno-deficiency Virus/ Acquired Immuno-deficiency Syndrome

through improved health literacy, access to information, enhanced cognitive skills, economic advantages, supportive social and psychological factors, and healthier lifestyle choices. Consequently, individuals with secondary school, college, or higher education are more likely to engage in behaviors that promote their health compared to those who cannot read or write [38, 39].

Older people with a supportive family during illness were more likely to have good HCSB than those who did not have family support. This finding was supported by the study in Southwestern Nigeria and Ethiopia [1, 32]. In most resource-limited countries, like Ethiopia and Nigeria, older people live with their families. Therefore, this living situation might create a chance to get family support. Older people with supportive families during illness demonstrate better HCSB due to various factors. Family support provides emotional and psychological comfort, financial help, and mitigating barriers to accessing healthcare. It enhances communication with healthcare providers, ensures adherence to medical advice, and supports chronic disease management through consistent care routines. Collectively, these elements lead to improved health outcomes by facilitating timely and appropriate medical care and reducing hospital readmissions [40, 41].

This study found that older people who were members of CBHI were more likely to have good HCSB than their counterparts. This finding is consistent with studies done in China, Iran, Turkey, and Western Ethiopia [8, 31, 37, 42]. This might be due to those who have health insurance coverage getting medical services freely. Since they are once charged yearly and the CBIH scheme promotes and increases healthcare-seeking behavior [43]. CBHI schemes often provide affordable and accessible healthcare services, promoting a sense of security and encouraging regular medical checkups. These programs reduce financial barriers, allowing older people to get timely medical care without worrying about incurring high fees. As a result, insured people are more likely to use preventative services, follow prescribed treatments, and seek early intervention for health problems, which leads to better overall health outcomes [44, 45].

In addition, older people who have chronic illnesses were more likely to experience good HCSB as compared with those who have no chronic illness. This finding is in line with studies done in Nepal, Albania, Nigeria, and Ethiopia [8, 32, 46, 47]. This might be due to those patients having regular follow-ups, and in each follow-up they are advised about the disease condition and are

Table 3 Factors associated with healthcare-seeking behavior among older peoples in Motta town, East Gojjam, Ethiopia, 2023 (*N* = 412)

Variable	Characters	HCSB		COR (95% CI)	AOR (95% CI)
		Good	Poor		
Sex	Female	49	105	1*	
	Male	52	86	1.67(1.10,2.54)	
Education level	Can't read and write	51	123	1*	1*
	Can read and write	29	56	1.23(0.72,2.18)	1.39(0.78,2.49)
	Primary	25	38	1.59(0.87,2.89)	1.44(0.77,2,69)
	Secondary	22	17	3.12(1.53,6.36)	2.69(1.27,5.68)**
	College and Above	35	16	5.28(2.69,10.37)	4.61(2.27,9.33)***
Supportive family during illness	Yes	37	44	1.39(0.85,2.26)	1.80(1.05,3.09)
	No	125	206	1*	1*
Member of CBHI	Yes	130	169	1.95(1.22,3.11)	2.02(1.21,3.36)*
	No	32	81	1*	1*
Having been ill for the last six months	No	12	7	1*	
	Yes	150	243	0.36(0.14,0.94)	
Been diagnosed with one or more chronic diseases by a health professional	No	76	175	1*	1*
	Yes	86	75	2.64(1.75,3.98)	2.55(1.64,3.97)**
Physical exercise 20 min per day	Yes	56	58	1.75(1.13,2.71)	
	No	106	192	1*	
Confidence in getting the preferred health service	Yes	129	176	1.64(1.03,2.63)	
	No	33	74	1*	
Turn back to get advice from health facilities	Yes	76	83	1.78(1.19,2.67)	
	No	86	167	1*	

Key: AOR = Adjusted Odd Ratio, CBHI = Community Based Health Insurance, COR = Crude Odd Ratio, HCSB = Health Care Seeking Behavior

*= Reference variable ** = P-value below 0.05 ***= P-value below 0.001

aware of the complications of the disease, hence seeking care at health facilities [48]. Chronic illnesses demand regular medical attention and continual monitoring, causing affected people to use healthcare services more frequently. These groups frequently have established ties with healthcare practitioners and are more aware of the necessity of regular check-ups and early intervention. Furthermore, healthcare institutions usually emphasize and facilitate care for people with chronic diseases, resulting in improved access and adherence to treatment procedures. In contrast, older people without chronic conditions may not see an immediate need for regular healthcare visits. This tendency is supported by research, which emphasizes the importance of chronic illness in encouraging attentive healthcare consumption among older people [48, 49].

As a limitation, the data was gathered by recalling the previous six months of reported illness, which may be socially desirable and recall-biased. During data collection, we did not attempt to distinguish between questions about supporting family during illness and dependence on others; thus, we may have pushed them for bias. We cannot rule out the causal relationship implied by the study's design.

Conclusion

The study found that two-fifths of older people engage in good healthcare-seeking behavior, which is a promising yet improvable statistic. Increased levels of education, strong family support systems, involvement in Community-Based Health Insurance programs, and the presence of chronic conditions are all important variables in promoting positive behavior. To improve HCSB among older people, targeted interventions should address issues. First, improve health literacy through educational programs that help older people navigate healthcare systems. Second, create family support networks through community events that encourage family involvement in geriatric care. Third, increase and promote Community-Based Health Insurance (CBHI) coverage. Fourth, develop specialized healthcare services and outreach programs to manage chronic illnesses, ensuring ongoing and comprehensive care. These measures can promote proactive healthcare-seeking behavior, improving the well-being and quality of life of older people. To delve deeper into the topic, researchers should use other study approaches, such as qualitative research, across larger geographic areas.

Abbreviations

AOR	Adjusted Odd Ratio
CI	Confidence Interval
COR	Crude Odd Ratio

DM	Diabetes Mellitus
ETB	Ethiopian birr
HCSB	Healthcare-seeking behavior
HIV/AIDS	Human Immuno-deficiency Virus/ Acquired Immuno-deficiency Syndrome
IQR	Inter-quartile range
KM	Kilometer
SD	Standard Deviation
UN	United Nation

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12889-024-19603-6.

Supplementary Material 1

Author contributions

Conceptualization and data curation: S. H., Z. W., H. S., and M.H.Data curation and investigation: S. H., Z. W., and M.H.Methodology: S. H., Z.W., H.S., and M.H.Software and validation: S. H., H. S., and M.H.Writing and editing: S. H., Z. W., H. S., and M.H.

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Data availability

Based on reasonable request all data is available at the corresponding author.

Declarations

Ethics approval and consent to participate

The study was approved by the Research Ethical Review Committee of the School of Nursing, College Medicine and Health Sciences on behalf of the University of Gondar review board with a reference number of S/N/160/2015. All methods were carried out following relevant guidelines and regulations. A formal letter indicating the approval was obtained and submitted to the University of Gondar Referral Hospital administrative and Amhara region health bureau. Approval to take oral consent or informed consent was secured from the Research Ethical Review Committee of the School of Nursing, College Medicine and Health Sciences on behalf of the University of Gondar review board. Permission letters were obtained both from the UoG School of Nursing and all four referral hospitals to interview each participant. Oral consent or informed consent was obtained from each participant for an interview and to participate in the physical examination. In all steps, confidentiality was maintained. Finally, after the whole process of data collection, the questionnaire was kept safe throughout the whole process of the research work.

Consent for publication

Consent for publication was secured during oral informed consent from the participant and approved by the Research Ethical Review Committee of the School of Nursing College Medicine and Health Sciences on behalf of the University of Gondar review board.

Competing interests

The authors declare no competing interests.

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