

Level of Awareness about HIV/AIDS among People Living in Galmudug, Somalia: A Cross-Sectional Study

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ABSTRACT

INTRODUCTION: Around the world, HIV/AIDS infects nearly half of all victims of AIDS-related illnesses. In Somalia, 10,500 persons are thought to be living with HIV/AIDS. A 500-person estimate of children who are HIV-positive is also available. According to estimates, only 35% of HIV-positive persons go to ART centres for their medicine due to lack of awareness. Therefore, this study was designed to assess level of awareness about HIV/AIDS among people living in Galmudug, Somalia. **MATERIALS AND METHODS:** A cross-sectional design was used to assess the degree of HIV and AIDS awareness among residents of Galmudug, Somalia. The study population consisted of reproductive-aged males and females (15 to 45 years old), and respondents were drawn using a purposive sampling technique. The structured questionnaire was developed to collect the information by interview method. A descriptive and inferential statistical analysis was performed using IBM SPSS version 25 software. **RESULTS:** This study found that most Somalians had moderate-to-adequate knowledge about HIV/AIDS (57.8%), whereas 42.2% had poor knowledge. A total of 274 (78.3%) of the samples showed a poor attitude toward HIV/AIDS, while 76 (21.7%) displayed a positive attitude toward the disease. An association was also found between marital status ($\chi^2 = 10.07, p < 0.05$) and education level ($\chi^2 = 29.55, p < 0.05$) and knowledge of HIV/AIDS. In relation to attitude towards awareness of HIV/AIDS, demographic variables (marital status, age, occupation, and education) were significantly associated. **CONCLUSIONS:** The community needs to provide factual and precise knowledge of HIV/AIDS through aggressive awareness and door-to-door campaigns on the prevalence of the virus.

Keywords: Awareness; HIV&AIDS; Immune Diseases; Somalia



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INTRODUCTION

In developing countries, in particular, the HIV/AIDS epidemic has become a significant public health issue. Positive attitudes and comprehensive knowledge are essential for preventing, controlling, and treating HIV/AIDS [1]. A variety of misconceptions associated with HIV/AIDS transmission contributes to negative attitudes toward people living with the disease. It is estimated that one out of every ten people in sub-Saharan Africa is living with HIV/AIDS [2]. Sub-Saharan Africa accounted for approximately 68% of all HIV-positive individuals in 2010. As of 2010, HIV infections in these countries accounted for 70% of new HIV infections [3]. Infections with HIV are most common among young people, 15–24 years old. There are approximately 3.3 million HIV-infected youth in Sub-Saharan Africa [4]. Sub-Saharan Africans have

been tested for HIV at a rate of more than 66% for more than a decade, but one-third are discovered late, increasing the risk of HIV-related morbidity and potentially resulting in HIV transmission in the community[5]. The AIDS epidemic has affected almost 80 million people throughout the world for nearly four decades, with roughly half of the victims dying from AIDS-related illnesses. In Sub-Saharan Africa, which has the highest HIV cases, nearly 25 million people lived with HIV in 2019 [6]. According to UNAIDS, the number of women living with HIV in Bangladesh increased from 2800 in 2012 to 3900 in 2016 [7]. Women in Bangladesh are more likely to contract HIV than men, which indicate an increase in HIV infections [8]. According to the type of epidemic within the region's countries, cities, and communities, HIV risk among

adults varies by ages, genders, and subpopulations. Women between the ages of 15 and 24 are at a greater risk of HIV infection in sub-Saharan Africa [9]. In There are an estimated 10,500 HIV/AIDS patients in Somalia. The number of children who live with HIV is also estimated at 500. There are only 35% of HIV-positive individuals in Somalia who attend ART centers for medication [10]. In Somalia, 66% of women aged 15–49 knew about HIV/AIDS, according to the SHDS survey about knowledge and attitudes towards people with HIV/AIDS. Unfortunately, attitudes toward HIV-infected people are discriminated against by 48% of women aged 15 to 49 [11]. Therefore, this study was designed to assess level of awareness about HIV/AIDS among people living in Galmudug, Somalia.

MATERIALS AND METHODS

Study design and setting

A cross-sectional study design was used to measure HIV and AIDS among People Living in Galmudug, Somalia in Galmudug society in Somalia.

Participants, sample size and sampling technique

Participants in the study were taken from Somalia's Galmudug society. The total number of participants for the study was 350, selected by the purposive sampling technique. The respondents were young people (15-45 years old) who live in society and are of reproductive age.

Data collection procedure and study variables

A face-to-face interview technique was used with a structured questionnaire to gather the data. Using information from literature, the participants were asked two sections of questions. Section one of the survey focuses on socio-demographic information such as gender, age, educational level, family income, and religion, while section two focuses on HIV/AIDS knowledge and attitudes. In order to verify the tools' dependability in several Galmudug societies with comparable setting, pilot testing was done. Corrections were then proposed. In addition, the research instrument had an index of content validity of 0.86 and a reliability coefficient of 0.89.

Statistical analysis and data management

After gathering the data, the researcher went through each questionnaire to ensure that it was accurate, thorough, and internally consistent in order to eliminate any missing or inconsistent information. Descriptive and inferential statistics (non-parametric) were utilized to examine the data in Statistical Package for Social Science (SPSS) version 25.

Ethical considerations

Informed written consent was taken during data collection and confidentiality of the participants was maintained.

RESULTS

Table 1 demonstrates that, of the 350 respondents who took part in the survey, 56.9% of them were female and 43.1% were men. Consequently, women took part in the activity at a higher rate than men. Furthermore, the chart shows that 61 (17.4%) of university students and 79 (22.6%) of Qur'an School students engaged in the study. Secondary school students (77/22.0%) and illiterate students (72/20.6%) were the next groups to participate. In the sample, 143 (40.9%) of the participants were married, whilst 210 (60%) were unemployed. A sizable portion (42.9%) of the participants were in the 21–30 age group.

Characteristics	Number (%)
Gender	
Male	151 (43.1)
Female	199 (56.9)
Age	
<20 years	79 (22.6)
21-30 years	150 (42.8)
>30 years	121 (34.6)
Marital Status	
Single	125 (35.7)
Married	143 (40.9)
Divorced	50 (14.3)
Widow	32 (9.1)
Occupational	
Employed	140 (40)
Unemployed	210 (60)
Educational Status	
Illiterate	72 (20.6)
Qur'an School	79 (22.6)
Primary School	61 (17.4)
Secondary School	77 (22)
University	61 (17.4)

Table 2 presents the descriptive statistics of participants' knowledge of HIV/AIDS. Among the total number of respondents, 130 (37.1%) had information on the difference between HIV and AIDS. Twenty-four hundred and forty (68.6%) people believe that the disease (AIDS) is not curable. Moreover, 286 (81.7%) of

Table 2 | Knowledge related of the respondents about HIV/AIDS (n=350)

Characteristic	Frequency	Percentage
There is no difference between HIV and AIDs		
True	220	62.9
False	130	37.1
AIDs is a curable Disease		
True	110	31.4
False	240	68.6
HIV can be transmitted sharing meals, clothes, latrines		
True	147	42.0
False	203	58.0
Genital sores can increase the rate of HIV transmission		
True	286	81.7
False	64	18.3
HIV can reduce the body's natural protection against disease		
True	309	88.3
False	41	11.7
Correct use of a condom during sex is a very good preventive method of HIV transmission		
True	276	78.9
False	74	21.1
Abstinence from sex is a very good preventive method of HIV transmission		
True	251	71.7
False	99	28.3
People who have been infected with HIV quickly show serious signs of being effected		
True	176	50.3
False	174	49.7
ART should be taken throughout the life of the patient		
Yes	285	81.4
No	65	18.6

participants knew that genital sores increase the transmission rate of HIV. The majority (58.0%) of participants responded that HIV cannot be transmitted through sharing meals, clothes, or latrines. Three hundred and nine (87.1%) participants knew that not having intercourse with commercial sex workers reduced the transmission rate of HIV/AIDS. Knowledge of the degree of method of HIV prevention was high for some factors but relatively low for others. Majority (78.9%) of respondents knew that using a condom correctly during sex is a very good preventive method of HIV transmission, while 21.1% did not. 71.7 percent of those polled thought that abstaining from sex was an excellent way to avoid HIV infection, while 28.3 percent did not. In terms of signs and symptoms, being faithful to a partner is an excellent preventive method for HIV transmission. 176 (50.3%), or 81.4% of participants, responded with correct answers. People infected with HIV frequently have severe symptoms, and the patient should receive ART for the rest of his

Table 3 | Attitude related to towards HIV/AIDS from the respondents (n=350)

Characteristics	Frequency	Percentage
Does HIV/AIDS a serious illness		
Yes	328	93.7
No	22	6.3
It is difficult to prevent HIV/AIDS transmission		
Agree	155	44.3
Disagree	195	55.7
Having multiple sexual partners , increases the chance of acquiring the virus		
Agree	274	78.3
Disagree	76	21.7
Anybody has the chance of acquiring the virus		
Agree	215	61.4
Disagree	135	38.6
Even if i do have only one partner i would be infected by the HIV virus		
Agree	193	55.1
Disagree	157	44.9
How can you interact with someone infected		
Avoid from him	91	26.0
Give him support	114	32.6
Isolation	75	21.4
Relate with care	68	19.4
Other	2	6
All pregnant women effect HIV will have babies born with AIDs		
True	231	66.0
False	119	34.0
Being faithfull to partner is an excellent preventive method of HIV transmission		
True	262	74.9
False	88	25.1

or her life. 292 (83.4%) participants responded: "You are an essential person in the fight against HIV infection."

Table 3 shows respondents' attitudes toward HIV/AIDS: the majority of respondents (93.7%) were aware that HIV/AIDS is a serious illness, while 6.3% were unaware. The proportion of those who believed having several sexual partners raises your chances of contacting the virus was 78.3%, while the proportion of those who opposed it was 21.7%. The virus may infect anyone. 61.4 % agreed, while 38.6 % disagreed. Respondents 91 (26.0%) avoided him, 114 (32.6%) supported him, 75 (21.4%) isolated him, 68 (19.4%) cared about him, and 2 (6%) had other opinions. The majority of respondents (168, or 48.0%) said "yes." Someone shared food with HIV/AIDS patients, while

182 (52.0%) said "no." The majority of respondents interacted with those infected with HIV/AIDS by supporting them, accounting for 26% of their interactions, while 24% interacted through isolation. Among the 231 (66.0%) participants, all HIV-positive pregnant mothers will have AIDS-infected children. The majority of participants (mostly 309, or 88.3%) agreed that HIV can reduce the body's natural defenses.

Table 4 presents associations between demographic variables and attitudes towards HIV/AIDS. According to table 4, there was a significant association between knowledge of the respondents and marital status on HIV/AIDS (marital status $\chi^2 = 10.07$, $p < 0.05$), and there was a significant association between the education of the respondents and knowledge on HIV/AIDS with education level ($\chi^2 = 29.55$, $p < 0.05$). This implies that the status of marriage and education level contributed immensely to the knowledge of HIV/AIDS.

Variable/ Group	Knowledge		χ^2	p-value
	Poor Knowledge	Good Knowledge		
Marital Status				
Single	41(11.7%)	84(24.0%)	10.07	0.018
Married	62(17.7%)	81(23.1%)		
Divorce	28(8.0%)	22(6.3%)		
Widow	17(4.9%)	15(4.3%)		
Education				
Illiterate	44(12.6%)	28(8.0%)	29.55	<0.001
Holy Qur'an	44(12.6%)	35(10.0%)		
Primary	22(6.3%)	39(11.1%)		
Secondary	21(6.0%)	56(16.0%)		
University	17(4.9%)	44(12.6%)		

DISCUSSION

In this study, we discovered that various factors are substantially related to HIV/AIDS knowledge and attitudes in Abudwak society. Regarding the knowledge variable, 231 (66.0%) participants knew HIV-positive pregnant mothers would transmit AIDS to their babies. Likewise, 309 (88.3%) participants responded that HIV could reduce the body's natural protection against disease. Three hundred and nine (87.1%) participants knew that not having intercourse with commercial sex workers reduced the transmission rate of HIV/AIDS. The study community appears to have a high level of knowledge about HIV/AIDS.

Table 5 showed a significant relationship between respondents' attitudes and marital status on HIV/AIDS (marital status $\chi^2 = 10.15$, $p < 0.05$), there was a significant relationship between respondents' education and attitude toward HIV/AIDS with education level ($\chi^2 = 19.74$, $p < 0.05$). Also, occupation and age were significantly associated with attitude toward HIV/AIDS (occupation $\chi^2 = 6.76$ & age $\chi^2 = 7.91$, $p < 0.05$).

Variables/ Group	Attitudes		χ^2	P-value
	Poor Attitudes	Good Attitudes		
Marital Status				
Single	108(30.9%)	17(4.9%)	10.15	0.017
Married	104(29.7%)	39(11.1%)		
Divorce	35(10.0%)	15(4.3%)		
Widow	27(7.7%)	5(1.4%)		
Age group				
<20 years	68(19.4%)	11(3.1%)	7.91	0.019
21-30 years	121(34.6%)	29(8.3%)		
> 30 years	85(24.3%)	36(10.3%)		
Occupation				
Employee	99(28.3%)	40(11.4%)	6.76	0.0009
Unemployed	175(50.0%)	36(10.3%)		
Education				
Illiterate	60(17.1%)	12(3.4%)	19.74	0.001
Holy Qur'an	61(17.4%)	18(5.1%)		
Primary	36(10.3%)	25(7.1%)		
Secondary	62(17.7%)	15(4.3%)		
University	55(15.7%)	6(1.7%)		

However, there are still wrong interpretations and misunderstandings about modes of transmission and preventive methods. Regarding the treatment of HIV/AIDS, 240 (68.6%) knew that HIV/AIDS is not curable, while a study conducted in Ethiopia found that seven hundred thirty-seven (90.3%) knew that the disease (AIDS) is not treatable. Moreover, 763 (93.5%) of participants knew that genital sores increased the transmission rate of HIV [1], while 286 (81.7%) of participants knew that genital sores increased the transmission rate of HIV. The majority (98.2%) of participants responded that HIV cannot be transmitted

through sharing meals, clothes, or latrines [12]. While 58% of respondents in this study believed that HIV could be transmitted through sharing meals, clothes, and latrines, 42% of participants knew that sharing meals, clothes, and latrines cannot transmit HIV. According to the study conducted in Kenya, A study in Kenya found that participants had high to moderate knowledge of HIV/AIDS [13], while another in Ghana found that 61.6% had a good understanding of HIV/AIDS [3]. However, this study showed a significant association between knowledge of the respondents and marital status and education level on HIV/AIDS (marital status $\chi^2 = 10.07$, $p < 0.05$), and there was a significant association between the education of the respondents and knowledge of HIV/AIDS and education level ($\chi^2 = 29.55$, $p < 0.05$). According to the study developed in Ethiopia, there were differences in level of education and gender among the socio-demographic variables that revealed significant association with one or more of the output variables. According to a recent study, 148 (42.2%) of 350 people had poor knowledge of HIV/AIDS, while 202 (57.8%) had excellent knowledge. Furthermore, a study conducted in Bangladesh discovered a significant relationship between HIV knowledge and respondents' education, economic status, and marital status in both urban and rural areas [14]. As a result, good HIV/AIDS knowledge was found to be somewhat higher in the Galmudug state society. While regarding attitudes toward HIV/AIDS among people living in Galmudug, most respondents (93.7%) were aware that HIV/AIDS is a severe illness, while 4 (4.3%) were not.

Most of the respondents interacted with those infected with HIV/AIDS by supporting them, representing (26.0%), while (21.4%) believed that through isolation. A previous study in Somalia found that 83% of parents said their children were extremely isolated from the rest of society, even if they were HIV/AIDS-free [15]. Most of the participants believed that having several sexual partners raises your chances of contacting the virus. The percentage of those who agreed was 78.3%, while the percentage of those who disagreed was 21.7%. The virus may infect anyone. 61.4 % agreed, while 38.6 % disagreed. Among the 350 participants, 93.7% knew that HIV/AIDS is a serious illness. Furthermore, current research has discovered that 66% of participants were aware that positive pregnant women could transmit Aids to their babies, while an

Ethiopian study discovered that 82.3% were aware of how to prevent vertical transmission of HIV/AIDS from mother to child, and 97.4% of participants had a positive perception of HIV/AIDS [12]. This study found a significant association between attitude and the demographic characteristics of the respondents (marital status, age, occupation, and education) (marital status $\chi^2=10.15$, $p<0.05$), and education level ($\chi^2 = 19.74$, $p<0.05$) (occupation $\chi^2 = 6.76$, $p = 0.05$; age $\chi^2 = 7.91$, $p<0.05$), respectively. A study in Ghana found that 172 (58.5%) of participants had a positive perception of HIV/AIDS and that there was a significant association between age and attitudes ($p < 0.05$) as well [12].

CONCLUSIONS

According to this study, the majority of Somalians (578.8%) had moderate-to-adequate knowledge about HIV/AIDS, while 42.2% had inadequate understanding. The bulk of the participants (274, 78.3%) held negative sentiments, while only 76, 21.7%, had positive opinions. Therefore, the community must impart accurate information about HIV/AIDS. Additionally, there should be more public education and awareness about HIV/AIDS. In addition, occupation and knowledge in Somali society were related to attitudes toward HIV/AIDS ($p = 0.001$) as well as education ($p = 0.009$). Marital status ($p = 0.008$) and educational background ($p = .002$) were both linked with knowledge of HIV/AIDS. The frequency and incidence of HIV/AIDS cases are rising in Somalia, which is a country with a public health problem. Galmudug State, Somalia's community members lack sufficient knowledge of HIV/AIDS and preventive measures, and have limited access to HIV/AIDS care providers in health centers due to Somali society's cultural isolation of HIV/AIDS positive individuals. As a result, this study highlighted the significance of eliminating the isolation of HIV/AIDS positive patients and their children by raising community awareness of the disease and cultivating a supportive attitude toward those who are infected. In order to lessen HIV/AIDS transmission among the most vulnerable individuals and the general population, as well as its impact at the individual, family, and community levels, federal and state health ministries should take an active part in HIV/AIDS prevention and treatment programs across the nation by establishing specialized HIV/AIDS health care centres.

ADDITIONAL INFORMATION AND DECLARATIONS

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Author Contributions:

Concept and design: AAA; statistical analysis: AAA and IYK; writing of the manuscript: MG and AHH; revision and editing of the manuscript: AAA, SFW, and MG. All authors read and agreed with the contents of the final manuscript.

Data Availability: Data will be available upon request to corresponding authors after valid reason.

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