

ORIGINAL ARTICLE

Perception of Ethiopian youth regarding their risk of HIV: A community-based study among youth in predominately rural Butajira

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Abstract

Background: Behavioural modification is the only means for the prevention of the deadly disease HIV/AIDS as there is no vaccine or cure for it. A lot of effort was in place for about two decades to control HIV/AIDS in Ethiopia. However, there is a paucity of community-based information that tracks the knowledge, perception and voluntary counselling and testing (VCT) uptake among rural youth.

Methodology: We conducted a cross-sectional study among 3743 randomly selected youth aged 15-24 years from June-September 2004, in south central Ethiopia, Butajira.

Results: We found a very high level of awareness (n=3666, 97.7%) and an above average comprehensive knowledge about the mode of prevention of HIV/AIDS (n=3362, 91.7%). Female (OR= 1.86; 95% CI=1.10-5.66), students (OR=4.87; 95% CI=1.54-15.36), those who were employed in government or private sector (OR=6.69; 95% CI=1.96-22.84), literates (OR=7.83;95% CI=3.20-19.15) and urban residents (OR=9.14; 95% CI=1.23-68.08) were more likely to be aware about HIV/AIDS than their counterparts. However, a substantial proportion of the youth (49%), had misconception about the mode of transmission. Eighty one percent of the youth do not perceive themselves to be at risk of HIV with their current behaviour and 75% (n=774 of 3006) with their lifetime behaviour. Seventy-nine percent (n=2905) of the youth were aware of VCT. However, among those who were aware, only 6% (n=178) were tested. Married youth, (OR=15.9; 95% CI=8.5-29.1) and literate (OR=1.66; 95% CI=(1.08-2.55) were more likely to be tested for HIV than their counterparts.

Conclusion: After two decades of HIV prevention intervention in the country, misconception about the prevention of HIV/AIDS was high among youth in rural Ethiopia. The low level of risk perception and VCT use makes the youth population vulnerable to HIV. Provision of quality information is necessary to avoid misconceptions, change their risk perceptions and behaviour.

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Introduction

Despite increasing efforts in the prevention and control of HIV/AIDS in Ethiopia, research has mainly focused on clinical, virological and epidemiological problems (1, 2). A more holistic approach that also strengthens the prevention process, has received limited attention. Studies focusing on knowledge, perception and risk behaviour of rural people were relatively neglected (2).

The Ethiopian HIV/AIDS strategy focuses on providing regular and adequate information to the population with the aim of decreasing vulnerability (3). However, the HIV epidemic is still high among young people. Thus, 5.6% of the antenatal attendees were HIV positive in the 15 to 24 year-old age groups (4). Studies also showed that many young people had multiple sexual partners and often experienced sexually transmitted diseases (STDs) (5-8). Though knowledge is not a sufficient condition to bring about a healthy lifestyle, it is an important cognitive factor in acquisition of an informed choice (9). Studies conducted in Ethiopia showed modest to very high awareness and knowledge towards HIV and AIDS (8, 10-15). However, most of these studies limited themselves to school youth and provide information on urban settings. Questions may also be raised about their representativeness as earlier studies were small and were not random (8, 10-15). They also excluded people aged 20-24 and married youths (15). Therefore, this study was conducted to assess HIV related knowledge, practice/ behaviour and perceived threat among young people in rural communities of Ethiopia.

Methods and Materials

A cross-sectional study was conducted in nine rural and one urban village in the Butajira Rural Health Programme (BRHP), south central Ethiopia (17). The study participants were youth aged 15-24 years living in the villages. We randomly selected 4339 participants proportionate to the size of the 10 villages using the BRHP database as a sampling frame. The sampling method was based with the aim of obtaining a representative sample of sexually active youth (18).

We used a pre-tested questionnaire to assess the knowledge, perception and practice of young adults towards HIV/AIDS and VCT. The questionnaire was prepared in English and translated to Amharic (the Ethiopian national language) by a language expert. Interviewers who had completed high school education collected the data at a household level after five days of training. Two supervisors and one field coordinator supervised the data collection process. Perceived susceptibility of getting HIV/AIDS was constructed from two statements: 'What is the likelihood that you are at risk of getting HIV/AIDS in the courses of your life/current behaviour', each completed in a five-point Likert scale ranging from (1) 'very likely' to (5) 'very unlikely'. Sum scores were used in the correlation and the five-point Likert scale was condensed into three-scale measures in the descriptive presentation. Perceived self-efficacy of preventing oneself from HIV was measured by using one statement: 'How certain are you that you protect yourself from the disease in the forthcoming years', the response was completed in a five-point Likert scale ranging from (1) 'extremely certain' to (5) 'not certain at all'. Sum scores were used in the correlation and the five-point Likert scale was condensed into three-scale measures in the descriptive presentation.

We measured awareness to HIV/AIDS by using one question whether the respondent had heard about HIV/AIDS. The response categories were (1) 'yes' (2) 'no'. Similarly, awareness to VCT and performing voluntary counselling, and testing (VCT) was measured using one question whether the respondents had heard about VCT and another question if the respondent had undergone VCT. The response categories were (1) 'yes' (2) 'no'.

Knowledge was measured using two questions having 11 items about the modes of prevention and transmission with three alternative answers: 'yes', 'no' and 'do not know'.

These include the actual mode of transmissions such as unsafe sexual intercourse, unsafe blood transfusion, mother to child transmission, using contaminated sharp objects and misconceptions such as eating together, shaking hands, mosquito bites and sharing toilets. Then all correct answers were recoded as having 1 point, wrong answers and do not know were recoded as having no point (0). The sum score was then classified as above average knowledge if the score is more than 6/11 and below average knowledge if the score is 6/11. A reliability and internal consistency coefficient, Cronbach's alpha of 0.84 was obtained. Those who had mentioned the three major prevention methods for heterosexual transmission of HIV/AIDS (abstinence, mutual monogamy between uninfected partners and consistent condom use) correctly were considered to have comprehensive knowledge about the disease (15). Similar scoring mechanism as that of knowledge about HIV/AIDS was used. An internal consistency in terms of Cronbach's alpha of 0.61 was obtained. Those who can read and write and above were recorded as literates, and those who were not able to read and write as illiterates. Unpaid family workers and those who had no job were classified as unemployed. Those who were attending school at the time of the study were classified as students. Those who were working in private organizations, public organizations, in their own business and other sectors were recoded as employed. Never married, separated, divorced and widowed were recoded as single and currently married and cohabitated were considered as married. We stored and cleaned the data using Epi-info version 6 statistical packages and analysed it using SPSS version 14.

Descriptive statistics is presented in percentages and numbers. To ascertain the association between the dependant variables and the explanatory variables, logistic regression was run and results are presented using odds ratios (OR) and confidence intervals (CI).

The study got ethical clearance from the Regional Committee for Medical Research Ethics in Norway and the Ethiopian National Ethical Review Committee.

Each participant volunteered to take part in the study, and parents agreed that we interview people younger than 18-year of age. To keep confidentiality, we did not record names of the informants on the questionnaire. We did the interviews in an area that provides maximum privacy for the respondents.

Results

Three thousand seven hundred forty-three youths took part in the survey, with a response rate of 86%. The non-response was related to absentees (427[9.7%]), emigration from the study site (143 [3.3%]), and refusal to participate (50[1.1%]). A few participants (36[0.81%]) were untraceable due to incorrect names, ages, or gender.

Most of the respondents were females (54.6%) , aged 15-19 years (75.7%) with a mean age of 17.5 (SD=2.7) and never-married (81.4%). The rural residents and Moslems accounted for about 73% and 73.2%, respectively. Twenty-eight percent of the youth had never been to school (Table 1).

Table 1 – Socio-demographic Profile of Young People Aged 15-24 in Butajira, Ethiopia, 2004

Variable	Male n (%)	Female n (%)	Total n (%)
Age			
15-19	1310 (77.1)	1525 (74.6)	2835 (75.7)
20-24	389 (22.9)	519 (25.4)	908 (24.3)
Residence			
Rural	1249 (73.5)	1481 (72.5)	2730 (72.9)
Urban	450 (26.5)	563 (27.5)	1013 (27.1)
Religion			
Muslim	1254 (73.8)	1486 (72.7)	2740 (73.2)
Christians	445 (26.2)	558 (27.3)	1003 (26.8)
Marital status			
Never married	1584 (93.2)	1461 (71.5)	3045 (81.4)
Ever married	115 (6.8)	583 (28.5)	698 (18.6)
Education			
Illiterate	260 (15.3)	771 (37.7)	1031 (27.5)
Primary	881 (51.9)	872 (42.7)	1753 (46.8)
Secondary	504 (29.7)	357 (17.5)	861(23.1)
Above highs school level	25 (1.5)	13 (0.6)	38 (1.0)
Read & write	29 (1.6)	31 (1.5)	60 (1.6)
Current attendance			
Attending	1087 (64.0)	957 (46.8)	2040 (54.5)
Out-of-school	616 (36.0)	1087 (53.2)	1703 (45.5)
Occupation			
Student	1072 (63.1)	919 (45.0)	1991 (53.2)
Unemployed	68 (4.0)	422 (20.6)	490 (13.1)
Farmer	434 (25.6)	7 (0.3)	441 (11.8)
Housewives	0 (0.0%)	415 (20.3)	415 (11.1)
Employed (government and private)	125 (7.3)	281 (13.7)	406 (10.8)
Total	1699 (45%)	2044 (55%)	3743 100%

Almost all youth (97.9%, n=3666) were aware of HIV/AIDS. Most of them had above average knowledge about modes of transmission (91.7%, n=3362) and prevention of HIV and AIDS (89.6%, n=3285%); with a median score of 10 in both items. Ninety-five percent of the respondent mentioned more than 50% of the mode of transmission and prevention correctly. Seventy-eight percent (78.2%; n=2866) had comprehensive knowledge about prevention of HIV. On the other hand, 646 (17.6%), 67 (1.8%) and 87 (2.4%) identified two, one and none of the preventive methods, respectively.

However, about half (49%) believe that HIV is transmissible through mosquito bites. A less than a fourth of the youth also believed that HIV is transmittable by sharing toilets, eating together, and shaking hands. Females (OR= 1.86; 95% CI=1.10-5.66), students (OR=4.87; 95% CI= 1.54-15.36), farmers (2.86; 95% CI= 1.11-7.34), government or private employees (OR=6.69; 95% CI= 1.96-22.84), literates (OR=7.83 ; 95% CI= 3.20-19.15) and urban residents (OR=9.14; 95% CI= 1.23-68.08) were more likely to be aware of HIV than their respective counterparts (Table 2).

Table 2- Comparison of Awareness about HIV/AIDS with Socio-demographic Factors among Youth aged 15-24, Butajira, Ethiopia, 2004 (n=3743)

Variables	Awareness to HIV/AIDS No	Yes	Crude OR (95% CI)	Adjusted OR (95% CI)
Age				
15-19	63	2772	1.00	1.00
20-24	15	893	1.35 (0.76-2.38)	1.86 (0.93-3.73)
Sex				
Male	30	1969	1.00	1.00
Female	47	1997	0.79 (0.49-1.24)	2.47(1.10-5.66)
Marital status				
Single	63	3012	1.00	1.00
Married	24	654	1.04 (0.59-1.88)	1.05(0.36-.2.87)
Literacy				
Illiterate	65	966	1.00	1.00
Literate	12	2700	13.97 (7.66-25.45)	7.83 (3.20- 19.15)
Occupation				
Unemployed	38	452	1.00	1.00
Student	8	1983	20.8 (9.26-48.7)	4.87 (1.54-15.36)
Farmer	19	422	1.87 (1.03-3.42)	2.86 (1.11-7.33)
Gov or Pvt. employee	9	407	3.8 (1.74-8.55)	6.69 (1.96-22.84)
Housewives	3	402	11.27 (3.53-57.37)	2.44 (0.74-8.11)
Residential area				
Rural	77	2653	1.00	1.00
Urban	1	1012	29.37 (4.08-211.45)	9.14 (1.22-68.83)

A high proportion of the youth did not think that they would be infected by HIV due to their past behaviour (75.3%, n=2761) or following their current behaviour (81.1%, n=3006) (Table 3). Most of the youth (62%, n=2291), did not know anyone who was infected with or died of HIV infection.

Among the never married (n=2985) 48.8% (n=1457) reported that they had discussion about HIV with their parents; and 59.0% (n=386) of the 654 married youth had discussed HIV with their partners.

Table 3 Risk Perception of Young People A 15-24 towards HIV/AIDS in Butajira, Ethiopia, 2004 (N=3666)

Variables	Number	Percent
Perceived susceptibility to HIV/AIDS with life-long behaviour		
Low likelihood	2761	75,3
Neither	836	23.9
High likelihood	69	1.8
Perceived susceptibility with the current behaviour		
Low likelihood	3006	81,1
Neither	590	16.1
High likelihood	70	1.9
Perceived self efficacy of prevention from HIV/AIDS		
Certain	3460	94.4
Neither	108	2.9
Uncertain	98	2.7

Knowing someone who had died or was sick of AIDS was significantly and positively correlated with perception of vulnerability with a lifetime behaviour ($r= 0.09$), current behaviour vulnerability ($r = 0.13$) and with self-efficacy ($r=0.04$).

Majority 79.2% (n=2905) were aware of voluntary counselling and testing (VCT), while only 6.1% (n=178) had undergone VCT. The most common reason for testing among those tested (n=178) was premarital testing (61%, n=108). "To know status", "to travel abroad" and other reasons account for 29.2% (n=52), 5.6% (n=10), and 4.5% (n=8) of the remaining reasons.

Among those who did not test for HIV (n=2727), 84% (n=2290) had intention while 16% (n=437) had not intention to have VCT. The main reason among the 2290 intenders was, knowing their HIV status (n=1635, 60%).

Premarital testing (n=538, 20%), to travel abroad (n=107,4%) and various 10 (0.4%) were the remaining reasons. Married youth were more likely to be tested (OR=15.89; 95% CI=8.45-29.10) than the never-married and those who were literate were more likely to be tested than the illiterates (OR=1.66; 95% CI=1.08-2.55) (Table 4).

Table -4 Comparison of HIV testing with demographic factors among youth aged 15-24 in Meskan and Mareko District, Butajira, Ethiopia, 2004 (n=2905)

Variable	Did VCT		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes	No		
Age				
15-17	51	1576	1.00	1.00
18-20	79	757	0.31 (0.21-0.45)	0.98 (0.60-1.58)
21-24	48	394	0.27 (0.17-0.41)	0.56 (0.32,1.00)
Sex				
Male	61	1245	1.00	1.00
Female	117	1482	0.62 (0.45-0.86)	0.62 (0.37-1.01)
Marital status				
Single	61	2299	1.00	1.00
Married	117	428	0.10 (0.07-0.14)	15.89 (8.45-29.10)
Literacy				
Illiterate	59	609	1.00	1.00
Literate	119	2118	1.70 (1.23-3.38)	1.66 (1.08-2.55)
Environment				
Rural	118	865	1.00	1.00
Urban	60	1862	4.23 (3.04-5.91)	1.19 (0.79-1.79)
Occupation				
Unemployed				
Student	11	298	1.00	1.00
Farmer	45	1567	1.29 (0.6-2.61)	1.13 (0.35-3.64)
Gov or Pvt.	22	289	0.50 (0.22-1.11)	0.65 (0.25-1.65)
employee	31	306	0.39 (0.18-0.82)	0.89 (0.39-2.03)
Housewives	69	267	0.17 (0.09-0.35)	0.85 (0.39-2.00)

Discussion

In this study, most of the youth were found to have above average knowledge about HIV/AIDS. However, they also had misconception about the mode of transmission. Risk perception and VCT uptake were also very low among the study population. Youth who were married, trusted their partners, and those who never had sex were reluctant to undergo VCT. Social desirability bias is a major problem with face-to-face interview. In this study the very low risk perception of getting HIV might be related to the rural norm of abstaining from sex until marriage (16). However, using a large sample size at a community level could be informative about the youth in rural Ethiopia with similar settings.

The high awareness and above average knowledge of HIV/AIDS reported among the youth do not empower them to perceive risk and develop preventive behaviours. Their low risk perception towards HIV/AIDS could be explained by the correlation between knowing an HIV victim and threat perception. One may think that the youth did not know a victim because of low prevalence of HIV in rural Ethiopia (18). However population movement between urban and rural is unavoidable event, which is a threat for the rural population (16). Several studies indicated that urban dwellers will go back to their families in rural areas when they are terminally ill looking for family support (4, 13, 19).

In our study, the fact that majority of the respondents reported that they haven't seen any one who had died of or sick of AIDS suggests the hidden nature and the stigma associated with the disease.

The second generation behavioural surveillance survey of Ethiopia reported the existence of deep-rooted stigma among different populations (15). The stigma associated with the disease can also be the major cause for the low prevalence of risk perception and VCT uptake in this population. Those who believed they are at lower risk of getting HIV/AIDS also think they can be able to protect themselves from the disease as shown by the negative correlation. The self-efficacy in this population might have emanated from their belief that being married, primary abstinence and having faith on partners would protect them from HIV. High school and collage based studies in other parts Ethiopia also found a low risk perception among the youth (13).

A considerable proportion of the youth had misconception about the mode of transmission of HIV, which could be suggestive of a knowledge gap about the disease. In a community, that has close ties and extended family relations, considering social contacts other than sexual relation, as a mode of transmission could be a dangerous source of stigma and discrimination. Other studies showed the existence of misconceptions in the youth population (15). Awareness about HIV/AIDS was increasing with being literate, employed in government sector and being a student. These socio-demographic factors are believed to expose individuals to information, i.e., youth who are at school, employed in government or private sector and urban residents are better exposed to information.

Other studies reported the relation between literacy level and awareness (11). However, the association of awareness with female sex is contradictory with other findings where male are more aware than females (18). This may be because of the young age of the population in our study.

VCT was marked as one of the means of prevention in the HIV/AIDS Strategic Framework of Ethiopia (3). However, compared to their knowledge status of HIV/AIDS, the awareness to VCT is low showing the effort made towards it was not enough. The main reason for low level of VCT service utilization could be associated to their low belief of susceptibility. A study conducted among pregnant women in Northern Tanzania indicated that women tested for HIV were having high level of risk perception (20). However, the fact that some rural youth tested for HIV before marriage and an 84% of intention to be tested is promising towards future prevention effort. VCT service use was significantly associated with the married and literate. This could be explained by the new trend observed among the community that parents do not allow their children without being tested for HIV.

From this study, we can conclude that, the low level of risk perception and low level of VCT service youth suggests that the population is vulnerable to HIV/AIDS. Knowledge is an important cognitive factor and power to bring behavioural change (21). Therefore, persuasive communication with quality information should be the aim of the health education programmes in order to eliminate misconceptions and change risk perception among the youth.

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