

## STI/HIV vulnerability among out of school youth in vocational training centres in Vavuniya and Kilinochchi districts.

Thanthree D K J<sup>1</sup>, Dharmakulasinghe V.S<sup>2</sup>, Jayasekara N<sup>3</sup>, Hathurusinghe H.A.C.W<sup>4</sup>

### Abstract

**Introduction:** A decade after the civil war in Sri Lanka, the youth in the northern province had access to the rest of the world, with a gap of knowledge on sexual health.

**Objective:** To determine the knowledge, attitude and high-risk behaviour towards HIV & STI and identify factors associated with high risk behaviours among out of school youth in vocational training centres in Vavuniya and Kilinochchi.

**Method:** A cross-sectional study was conducted among 303 consenting out of school youth in vocational training centres were recruited in Vavuniya and Kilinochchi districts. Research validated scales were used to assess HIV knowledge and attitude. Bivariate statistical methods were used to understand the relationship between the variables.

**Results:** Mean age was 18.5 years (SD=2.1 years), and 51% (n=155) were male. Only a quarter (n=76) had adequate HIV knowledge, and 11% (n=34) had the correct attitude. Sixty-three (21%) had consumed alcohol, and 34 (11%) had taken psychoactive drugs. Fifteen (5%) were sexually active, and 4 (1%) had received commercial sex. Adequate knowledge and attitude towards HIV were associated the sex (P=0.000, P=0.0045) and knowledge obtained from school (P=0.000, P=0.027).

**Conclusions:** Even though risk behaviours for STI and HIV were low among out of school youth, the knowledge and attitude towards HIV/STI were poor.

**Keywords:** Youth, Northern province, Sexually Transmitted infections, HIV

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**Authors:** corresponding author; <sup>1</sup> Dr D K J Thanthree, MBBS, PgDVen, MD, acting consultant venereologist, STD clinic Kilinochchi. Email: [damindu\\_jalath@yahoo.com](mailto:damindu_jalath@yahoo.com),  <https://orcid.org/0000-0002-3162-0160>

<sup>2</sup> Dr V.S.Dharmakulasinghe, MBBS, PgDVen, MD, Consultant Venereologist, STD clinic Panadura,. Email: [vinodharmakulasinghe@gmail.com](mailto:vinodharmakulasinghe@gmail.com),  <https://orcid.org/0000-0002-4623-1993> -

<sup>3</sup> Dr N Jayasekara, MBBS, PgDVen, MD, Consultant Venereologist, STD clinic Badulla, Email [jayasekara.niroshan@gmail.com](mailto:jayasekara.niroshan@gmail.com)

<sup>4</sup> Dr H A C W Hathurusinghe, MBBS, PgDVen, MD, Consultant Venereologist, STD clinic Kegalle. Email [hacwhathurusinghe17@yahoo.com](mailto:hacwhathurusinghe17@yahoo.com)



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## Full article

### Introduction

WHO defined 15 to 24 years old as a youth, and 19% of the world population consist of youths while South Asia and sub-Saharan Africa have almost half of the global youth population(1). It is estimated that the youth population in Sri Lanka is about 4.4 million or 23% of the total population based on 2012 statistics. Sri Lankan youth categorize as those engaged in educational activities, employed and unemployed.

Out of school youth has defined as either an eligible youth who is a school dropout or an eligible youth who has received a secondary school diploma or its equivalent but is basic skills deficient, unemployed, or underemployed. (2)

Dropout rates between Grades 6-11 were 3% in the Sinhala medium and 6% in the Tamil medium in 2001. Around 37% are not proceeded beyond the upper secondary level of school education. These out of school youth are searching for occupations. (3)

Sri Lanka is a country with a low prevalence of HIV, and the estimated number of people living with HIV in 2019 is 3,600(3,200-4,200). Among them, 15-20% are young adults in the 15-24 age group(4). According to the Family Health Bureau, 5.3 % of all registered pregnancies are teenage pregnancies and 22% of out-of-school adolescents were sexually active (2). Integrated biological and behavioural surveillance survey done in 2018 identified that 7.9% of female sex workers, 22.3% of men who have sex with men, 6% of IV drug users, 30% of Beach boys and 26% of transgender women were between the age of 18 to 24 years (5).

There was a civil war in the Northern and Eastern provinces of Sri Lanka from 1983 to 2009. Over 25 years, the war caused significant damages for the country's population, environment, and economy, with an initial estimated 80,000-100,000 people killed during its course. After the civil war, the youth in the war-affected areas had access to television, the internet and social media, which

had allowed their access to the rest of the world.

There are five districts in Northern Province: Jaffna, Kilinochchi, Manner, Mullaitivu, and Vavuniya, which account for 1,143,000 of population. (6) Each district has an STD clinic, and three clinics function as ART centres, while 2.2% of cumulative patients living with HIV taking services from them. However, the number of clinic attendees in this Northern Province is relatively low compared to the country's rest.

National Youth Corps, The Vocational Training Authority of Sri Lanka (VTA) and National Apprentice and Industrial Training Authority (NAITA) are government institutions providing industry acceptable technical and vocational training for out of school youths with different abilities through the island-wide industrial and institutional training system. Further, these are the best venue to identify out of school youth(7)(3).

Therefore, it is vital to identify the new information on vulnerability toward Sexually transmitted diseases in the out of school youth in these two districts of the Northern province of Sri Lanka.

### Objectives:

The objective of the study was to determine the knowledge, attitude and high-risk behaviour towards HIV & STI and identify factors associated with risk behaviours among out of school youth in vocational training centres in Vavuniya and Kilinochchi

### Methods

This is a descriptive cross-sectional study conducted among out of school youth in the National Youth Corps, The Vocational Training Authority of Sri Lanka (VTA) and National Apprentice and Industrial Training Authority (NAITA) centres in Vavuniya and Kilinochchi District. The study population was Sri Lankan citizens aged 15 to 24 years and were school dropouts or basic skills deficient attached to vocational training centres in Vavuniya and Kilinochchi districts. A systematic sampling method was used to select 303 sample from 900 of the study population in

two districts. Structured self-administered questionnaire containing close ended questions was used as the data collection tool. The questionnaire assessed socio-demographic data, knowledge and attitude towards HIV & STI and assessment of the risk behaviour, including substance & alcohol abuse and unprotected sexual exposures. Data were analyzed using SPSS 21.

## Results

The total sample was 303 and the mean age of the participants was 18.5 years (SD=2 years). The majority (51.2%) was male, and 157 (51.8%) were Sinhalese. Even though 212 (70%) lived with both parents, 68 (22.4%) lived with a single parent.

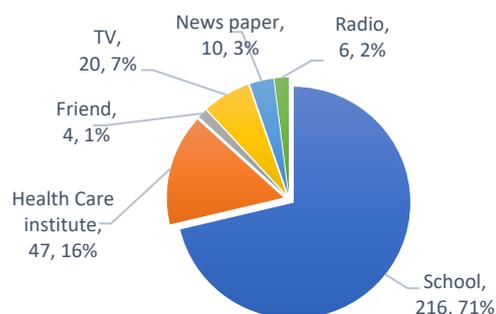
**Table 1:** Socio-demographic profile

Socio-demographic characteristic	No.	%	
Age categories (%)	16-18 yrs	150	49.5
	19-21 yrs	130	42.9
	22-24yrs	23	7.6
	Total	303	100
Sex	Male	155	51.2
	Female	148	48.8
	Total	303	100
Nationality (%)	Sinhalese	157	51.8
	SL. Tamil	132	43.6
	Indian Tamil	1	0.3
	Moor	13	4.3
	Total	303	100
Education (%)	No schooling	4	1.3
	Grade 1-5	2	0.6
	Grade 6-9	8	2.6
	Grade 10-11	162	53.5
	Grade 12-13	119	39.3
	Diploma	8	2.6
Total	303	100	
Marital status	Single	276	91
	Married	3	1
	No response	24	8
	Total	303	100
Living with whom	Marital partner	6	2
	Sexual partner	2	0.7
	Both Parents	212	70
	Single parent	68	22.4
	Siblings	4	1.3
	Relatives	10	3.3
	Live alone	1	0.3
	Total	303	100

## Knowledge and attitude towards HIV

HIV knowledge was assessed with UNGASS knowledge assessment tool which defined adequate knowledge by correctly identifying four out of five questions related to Knowledge of HIV. Only 76 (25%) had adequate knowledge and 68% (n=207) knew mother to child transmission of HIV.

**Graph 1:** Mode of receiving HIV knowledge



The majority of 216 (71%) had obtained HIV knowledge from school, and 47 (16%) had received knowledge from healthcare institutions.

Attitude towards HIV was assessed by UNAIDS general population survey assessment tool, which defined adequate attitude by correctly answering all four questions properly, and only 11% (n=34) had correct attitudes.

## STI knowledge

Awareness of Sexually transmitted disease symptoms related to males and females was assessed separately, and 14 participants did not respond. 182 (63%) and 198 (68%) participants were unaware of male and female symptoms, respectively.

Regarding male symptoms, only 13% (n=38) participants correctly identified the urethral discharge, while 14.5% (n= 42) recognized genital ulcers as a symptom. In female symptoms, only 37 (13%) correctly identify vaginal discharge. Genital ulcers and lower abdominal pain were recognized by 36 (12%) and 9 (3%), respectively.

## HIV testing

Only 118 (39%) knew about places for HIV testing, and 10 (3.3%) had done HIV testing. 7 (70%) had done testing from an STD clinic, and 3 (30%) had done it from a private laboratory.

### HIV and STI risk factors

Only 15 (5%) were sexually active and 12 (80%) were male. All had heterosexual relationships. 11 participants were single, and two lived together with a sexual partner. Four (27%) participants were involved in commercial sex out of sexually active participants, and all were single.

**Table 2:** HIV and STI risk factors

Variable	No.	%	
Ever had sex	Yes	15	5
	No	282	93
	Nonresponse	6	2
	Total	303	100
Age of first sex	16-18 yrs	8	53
	19-21 yrs	6	40
	22-24yrs	1	7
	Total	15	100
Type of sexual intercourse	heterosexual	15	100
	Homo/Bisexual	00	00
	Total	15	100
Condom use at last sex	Yes	3	20
	No	12	80
	Total	15	100
Ever had commercial sex	Yes	4	27
	No	11	73
	Total	15	100
Alcohol and substance abuse			
Ever consume alcohol	Yes	63	21
	No	240	79
	Total	303	100
Current drinkers	Yes	21	7
	No	272	93
	Total	303	100
Ever had psychoactive drugs.	Yes	34	11
	No	269	89
	Total	303	100

### Knowledge related to condom and use of a condom

Forty-five (15%) participants knew the condom available places and of them, 39 (87%) were males. Only 5 male participants had obtained condoms during last year. Regarding the affordability of condoms, 206 (68%) were not aware of it, and 23 (7.6%) believed it was affordable.

### Self-perception of HIV risk

In the self-assessment of HIV risk, 99 (32.7%) participants suggested they were at high risk,

while 46 (15%) believed they didn't have a risk. Nearly half of the participants (49%, 149) did not aware of their risk for HIV.

A binomial logistic regression model was used to assess the association between adequate knowledge and attitude with other independent variables.

**Table 3:** Logistic regression analysis of the socio-demographic, HIV knowledge receiving mode and adequate Knowledge on HIV

Variable	Stand ard error	P- value	Odd ratio	95% CI
Sex	0.306	0.000	3.623	1.987-6.605
Knowled ge via School	0.450	0.000	4.787	1.9832-1.554
Knowled ge via health care institute	0.520	0.227	1.875	0.676-5.201
Age	0.79	0.262	0.915	0.783-1.069
Educatio n level	0.217	0.808	1.054	0.689-1.614
Living with whom	0.165	0.231	0.821	0.594-1.134

**Table 4:** Logistic regression analysis of the socio-demographic, HIV knowledge receiving mode and adequate attitude toward HIV

Variable	Stand ard error	P- value	Odd ratio	95% CI
Sex	0.425	0.004	3.377	1.467-7.769
Knowledg e via School	0.594	0.027	3.729	1.164-11.951
Knowledg e via health care institute	0.630	0.298	1.926	0.560-6.621
Age	0.108	0.140	0.852	0.689-1.054
Education level	0.322	0.415	1.300	0.691-2.445
Living with whom	0.191	0.690	0.707	0.4860-1.0270

Adequate knowledge was significantly associated with sex and knowledge received with school education.

The good attitude was significantly associated with sex and knowledge received through school education.

Sexually activeness was not associated with sex ( $P=.998$ ), age ( $P=.974$ ), alcohol consumption ( $P=.96$ ), other substance abuse ( $P=.992$ ), educational level ( $P=.158$ ) or adequate knowledge of HIV ( $P=.651$ ).

## Discussion

In this study, Knowledge of STIs and HIV was low among youth in the vocational centres in Vavuniya and Kilinochchi but 68% ( $n=207$ ) knew about MTCT of HIV. School children in rural and urban surroundings in Colombo had good knowledge of HIV, with around 90% correctly identified mode of HIV transmission(8). Out of school youth in Youth crops at Western province had a higher level of knowledge on STIs and HIV, and it was positively associated with age and educational level(9). In our study, age ( $P=0.262$ ) and education level ( $P=0.808$ ) were not associated with adequate knowledge, while sex ( $p=0.00$ ) and knowledge received at school ( $P= 0.00$ ) were associated with HIV Knowledge.

Male gender had 3.6 odd ratio of good knowledge compared to female and learning about HIV from school had odd ratio of 4.7 for adequate Knowledge for HIV. The correct attitude towards HIV was low among participants (11%, $n=34$ ); however, the proper attitude was associated with gender and learning about HIV from school. Around 40% of participants knew HIV testing facilities and the previous study in youth crops centres in western province revealed deficient knowledge on HIV testing.

In this study, only 5% was sexually active, which is relatively low to the studies done in the Western province where 15.5% in Colombo youth crops and 25% in vocational training centres in Colombo District (9)(3). In this study, all had heterosexual exposures, while 10% and 24% in Colombo vocational centres and youth crop study had homosexual relationships. In this sample, only 27% had involved with commercial sex while in Youth in

Colombo, 79.2% had multiple partners. However, 80% ( $n=12$ ) of sexually active participants in this study had last sex without a condom which was less in western province studies (69%).

In our study, nearly one-fifth (21%) of participants had consumed alcohol, and only 7% were current drinkers, which is low to the national figure of 14.5% male youth were current alcohol users according to the national alcohol survey in 2008 (10).

Related to safe sex, only 15% ( $n=45$ ) knew about condom available places, and knowledge regarding condom availability is low among the study sample compared with Youth in Colombo, where 65.2% knew condoms available in Pharmacies.

## Conclusions

This study showed that HIV/STI knowledge and attitude towards HIV were low among youth in vocational training centres in Vavuniya and Kilinochchi districts. However, adequate knowledge and attitude were positively associated with school education. Compared to the Western province, risky sexual behaviours and alcohol consumption was low among this sample. Since adequate knowledge and attitude towards HIV is associated with school learning, school education can be utilized to improve the Knowledge and attitude towards STI and HIV among youth in these districts.

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