

## Utilization of Youth Friendly Reproductive Health Services among Secondary School Youths in Fort Portal Municipality, Western Uganda: School Based Cross Sectional Study

Irumba Pauline<sup>1\*</sup>, Munguiko Clement<sup>1</sup>, Conrad Ondieki Miruka<sup>1</sup>

<sup>1</sup>Mountains of the Moon University, Uganda.

### Original Research Article

#### \*Corresponding author

Irumba Pauline

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**Abstract:** Youth often face difficulties in accessing sexual and reproductive health services. The main aim this study was to determine the utilization of youth friendly reproductive health services among secondary school going youths of Fort portal Municipality and ascertain factors that influence use of these services. A cross sectional descriptive study was conducted on 250 secondary school youths in Fortportal Municipality. Sample size was determined by using Kish Leslie's formula. Clustered sampling method was used to choose two (2) schools from each division of Fort portal Municipality; then respondents selected by consecutive sampling method. Data was analyzed using SPSS V.22. About half (53.2%) of the respondents were females and most of the study respondents (85.6%) were adolescents. Almost a third of the respondents (39.2%) were sexually active with 67.3 percent of them having unprotected sex. The study revealed that more than three quarters (79.2%) of the youths were poor users of youth friendly reproductive health services with sex education as the most utilized service (88.4%) and the least being use of contraceptives (20.3%). Age and availability of the services were the main determinants of utilization of these services. Adolescents utilized Youth friendly reproductive health services more than fellow older youths (P; 0.023 and P; 0.033 respectively). Availability of some Youth friendly reproductive health services in schools and health facilities influenced their utilization (P; 0.001 and P;0.013 respectively). Youth friendly reproductive health services are under-utilized by secondary school going youths. Youth friendly healthcare clinics should be operational in all schools and health facilities.

**Keywords:** Utilization, youths, reproductive health services, influences, friendly, determinants

### INTRODUCTION

It is estimated that by the end of year 2014, there were 1.2 billion youths globally constituting 26 percent of the world population [1]. Similar to this, older adolescents 15-19 years are part of the youth with four out of five adolescents living in developing countries including Uganda [1]. Youth friendly health services concept was initiated by World Health Organization (WHO) together with International Conference on Population Development (ICPD) to render reproductive health services to all youths in a way that is acceptable and appreciated [2]. These services include the following; Sex education, guidance and counseling, family planning services, ANC services, safe delivery and post natal care, prevention and appropriate treatment of infertility, prevention and management of STIs, HIV/AIDS, abortion, prevention and surveillance of violence against all women, strengthen referral system for further diagnosis and management of the above problems, promotion of human sexuality and reproductive health using

appropriate methods like information [2]. In Sub Sahara Africa, sexual and reproductive health needs among the youth remains a challenge and [3] emphasize that most youth in Sub Saharan Africa start engaging in sexual activity when they are still of school age whether or not they are in school. Youths in Africa are at a risk of experiencing sexual and reproductive health problems than any other youth in other parts of the world due to challenges in seeking medical care and sexual health counseling [4]. This has resulted in undesirable instances that ruin the productivity of the youths [5]. In 2008, an estimate of five million young people living with HIV/AIDS, 80 percent of them lived in sub Saharan Africa [6]. Adolescent girls and young women 15-24 years have up to eight fold higher rates of HIV infection compared to their male peers [7]. Although the utilization of youth friendly reproductive health services (YFRHS) in Uganda improved based on the improvement in health indicators, a significant number of youth still face challenges [8]. Among them include lack of access to contraception methods with only 20.1

percent and 31.1 percent of unmarried women in the age groups 15-19 and 20-24 years respectively use modern contraceptive methods [8]. Young people's sexual and reproductive health remain a challenge in Uganda [9]. Jane [3] found that 80 percent of young people in Kabarole district that encompasses Fort portal municipality still have insufficient understanding of how to avoid HIV/AIDS. Literature on utilization of YFRHS in Fortportal Municipality is scanty and factors that influence utilization are not known; therefore the aim of this study was to determine the level of utilization of YFRHS and determinants of utilization of YFRHS among secondary school youths in Fort portal Municipality.

## **MATERIALS AND METHODS**

### **Study area**

The study was conducted in Fortportal Municipality with a population of 53,786 people [8] and 26 percent being youth according to National Population Housing Census [10].

### **Study design**

A quantitative cross sectional study design descriptive in nature was used to measure the utilization of YFRHS and determinants influencing use of these services among the youths.

### **Study population**

Youths in secondary schools aged 15-24 years in Fort portal Municipality were included. The proportion of youth aged 15-24 years in secondary schools in Fort portal Municipality would be 42 percent approximately 5,523 students [10]. However due to ethical issues involving assenting minors (15 to 17 years) that necessitates contacting guardians and parents, they were not included in the study. This study included youth between 18 to 24 years. The proportion reduced to 24 percent (3156 students).

### **Sample size determination**

Using the Kish Leslie's formula, the sample size is to be calculated as  $n = Z^2pq/d^2$  where  $n$  =desired sample,  $Z$ = normal deviate set at 1.96 which corresponds to 95% confidence interval,  $p$ = the proportion of youths in secondary schools = 24.3 percent (0.243, [8]),  $d$ =permitted error =5 percent, 0.05 at 95 percent confidence interval,  $q = 1-p$ ; therefore  $n = 1.96^2 \times 0.24 \times (1-0.24)/0.05^2$   $n = 280.2 = 280$

Therefore 280 students would be the sample size but since the total student population aged 18-24 years in Fort portal municipality is less than 10,000, modified Kish Lislle formula was used.

$$nf = \frac{n}{1 + \frac{n-1}{N}} \quad \text{where } nf \text{ is the minimum sample size.}$$

$n$  is the sample size calculated from the general formula.  $N$  is the total population of the youth.

$$= \frac{280}{1 + \frac{280-1}{3156}} = 374 \times \frac{3156}{3435} = 257 \text{ respondents.}$$

In this study, the sample size of 250 respondents participated which was equivalent to 97.3 percent. This was due to the number of respondents who met the inclusion criteria at the time of data collection.

### **Sampling criteria**

Clustered sampling method was used to choose two (2) schools from each of the three (3) divisions of Fort portal Municipality so as to make a total of six (6) schools. To select respondents, consecutive sampling method was used in the research because it sought to include all the accessible subjects as part of the study. Schools selected were Kabarole Adventist Secondary school, Mpanga Senior Secondary School, Kamengo Secondary School, Kyebambe Girls' Secondary School, King of Kings College and St. Paul's Senior Secondary School.

### **Inclusion and exclusion criteria**

This research included all youths aged 18 to 24 years in secondary schools within Fort portal Municipality. However it did not involve all those who met the criteria but refused to consent, those who felt unwell at the time of data collection and students who were absent on the day of data collection.

### **Study variables**

The dependent variable was utilization of Youths Friendly Reproductive Health Services which included use of contraceptives and condom use, sex education, use of ANC services, prevention and management of STIs, prevention and surveillance of violence against women, guidance and counseling. The independent variables in the study were youth related factors that include age, sex, knowledge health facility related factors which are; distance, privacy, availability of the services level of training of service provider, communication of the provider and sex of the provider.

### **Research tools**

A self administered questionnaire was given to respondents during the study. It consisted of closed and open ended questions.

### **Quality control measures**

Data was collected from selected secondary schools in Fort portal Municipality using questionnaires. For purposes of not disrupting the ongoing learning process, the researchers requested to engage respondents during break time, lunch time and evening hours after classes. The respondents were

selected and requested to gather in a designated hall or classroom after consenting. All questionnaires would be checked on submission by the respondents after completion to ensure that all errors and unanswered questions are corrected and answered respectively. Data entry was done after checking the questionnaire for errors. Non responses originating from absence or refusal were reduced by ensuring confidentiality to respondents, explaining to them the reason for conducting the study and encouraging them to cooperate.

**Data management, processing and analysis**

All questionnaires that were collected were checked for completeness before respondents left the hall or classroom. All data was collected with hard copies and kept in a metallic box with lock and key that was locked with the key only accessible to the researchers. Data analysis was done using SPSS 22.0v. Questionnaires were coded, data entered in the database using SPSS.22.0v; then presented in tables and charts for interpretation. In the analysis of questionnaires, respondents that had ever used four or more of the mentioned services were considered to be good users, those who had used less than three of the services were

poor users and non users were those who had never used any of the services above.

**Ethical considerations**

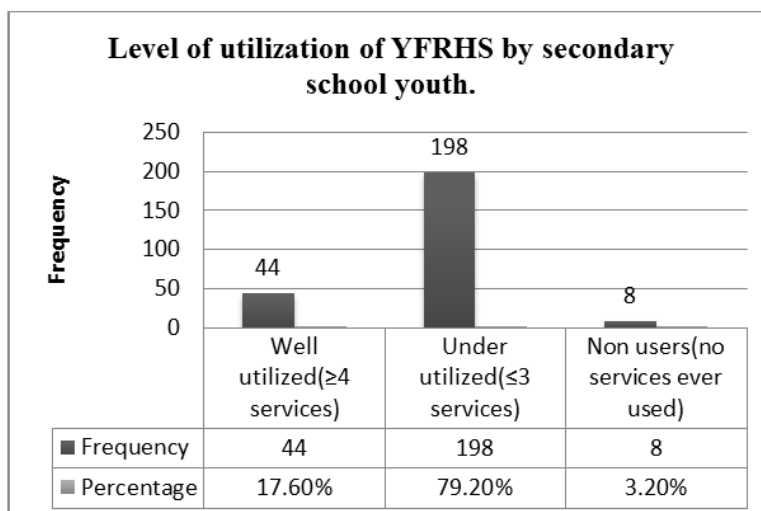
An informed consent was obtained following thorough explanation and each respondent had a consent form appended with a signature or thumbprint. The aim of the research was explained. Respondents were further explained risks and benefits of their participation. Respondents were free to withdraw from the study without restrictions. Privacy and confidentiality were maintained by allowing each respondent sit alone while answering the questionnaire. Clarification was done by the researcher. A distance of approximately 0.5 metres was maintained between the seats. No names were written on the questionnaires that were answered. Discussion among respondents during the exercise was discouraged by allowing them to ask the researchers for any clarification.

**RESULTS**

About a half of the respondents were females (53.2%) and majority of the respondents (85.6%) were adolescents. Most of the respondents (86.0%) were Christians. Respondents who were in ordinary level were 59.2 percent. Almost half of the parents/guardians of respondents were self employed (51.2%)

**Table-1: Socio-demographic findings of respondents (n=250)**

Factor	Classification	Frequency (n)	Percentage (%)
Sex	Male	117	46.8
	Female	133	53.2
	Total	250	100.0
Age group	18-19	214	85.6
	20-24	36	14.4
	Total	250	100.0
Religion	Christian	215	86.0
	Muslim	27	10.8
	Others	8	3.2
	Total	250	100.0
Level of education	Ordinary level	148	59.2
	Advanced level	102	40.8
	Total	250	100.0
Type of school	Day school	164	65.6
	Boarding school	86	34.4
	Total	250	100.0
Parent(s)/Guardian's occupation	Self employed.	128	51.2
	Formal employment.	55	22.0
	Farmer.	59	23.6
	Causal worker.	8	3.2
	Total	250	100.0



**Fig-1: Overall level of utilization of YFRHS**

A significant portion of the youths (79.2%) had not used at least 4 of the 7 measured youth friendly reproductive health services which was the average level in this study. Non users (3.2%) had never used any of the services. Good users (17.6%) had used  $\geq 4$  of the measured youth friendly reproductive health services. These services were; sex education, condom use, use of contraceptives among females, HIV counseling and testing, care about sexual violence,

management of STIs and antenatal care services to the youth.

**Youth related factors that influence utilization of YFRHS**

Almost three quarters (82.8%) of the respondents were not restricted from utilizing YFRHS by religious affiliations. Culture, norms, values and beliefs also limited use of YFRHS among 24.4 percent of the respondents. More than half of the respondents, 55.6 percent were aware of YFRHS package.

**Table-2: Youth Socio demographic influences on utilization of YFRHS**

Services	Defining characteristics		Utilized	Not utilized	P value	95% CI	Odds ratio
Management of STIs	Age group	18-19 yrs	23	6	0.023	1.12-52.32	7.667
		20-24 yrs	2	4			
Sexual violence, harassment	Age group	18-19 yrs	67	147	0.033	1.05-7.58	2.826
		20-24 yrs	5	178			
Type of school attended and sexual intercourse in the last 12 months.							
	Yes	No	Total		P Value	CI	OR
Day school	73	91	164	0.018	1.120 to 2.420		1.957
Boarding school	25	61	86				
Sex of the respondent and sexual intercourse in the last 12 months.							
	Yes	No	Total		P value	CI	OR
Male	55	62	117	0.018	1.111 to 3.103		1.857
Female	43	90	133				
			250				

Management of STIs among the youth by health professional was associated with the age groups

18 to 19 years and 20 to 24 years (P=0.023, CI 95% =1.12-52.32, OR=7.667). There was significant

relationship between use of sexual harassment services and the level of education (P=0.017, CI; 1.13 to 3.65, OR= 2.028). There was an association between the type of school attended and sexual activity among youth

within 12 months (P=0.018,  $X^2 = 5.645$ , CI; 1.12 to 2.42, OR = 1.957).

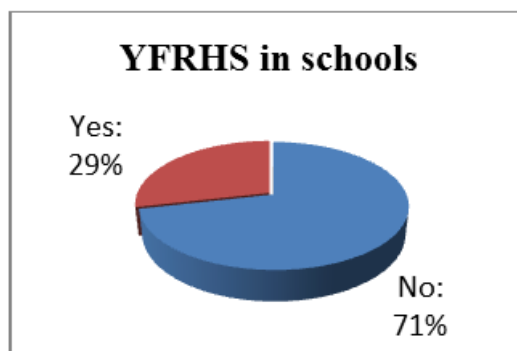
**Health facility and school determinants of utilization of YFRHS**

**Table-3: Availability and utilization of youth friendly reproductive health services in health facilities and schools**

Youth friendly services available	Utilization In schools	Utilization In health facility
STIs management	Fisher’s exact (0.036)	P (0.310)
HIV counseling and testing	P (0.088)	P (0.013)
Seeking care on sexual violence	P (0.001)	P (0.049)
Contraceptive use	P (0.898)	P (0.731)
Sex education	p (0.106)	P (0.248)
Antenatal care among youth	P (0.913)	P (0.489)
Condom use during intercourse.	P (0.577)	P (0.509)

Availability of YFRHS in schools was a factor that influenced STIs management, seeking care on sexual violence (Fisher’s exact 0.036 and P: 0.001 respectively). Utilization of HIV counseling and testing

services and seeking care on sexual violence was influenced by their availability in health facilities visited by the youth (P: 0.013 and P: 0.049 respectively).



**Fig-2: Youths’ responses on the availability of YFRHS in their school**

According to the figure above, nearly three quarters (71%) of the respondents cannot access YFRHS from their respective schools.

Most of the respondents (49.6%) had their nearest health facility in a range of less than 5km. According to the findings, majority of the respondents (63.6%) find it cheap to access YFRHS. Nearly half (45.6%) reported that they find few YFRHS in the health facilities they visit. Most of the respondents (47.6%) felt sad when not offered the care they needed. Of the facilities visited by the respondents, 51.2 percent found a special youth care corner in those facilities. The need for a special youth corner in health facilities was supported by 85.2 percent of the respondents. Most (61.5%) supported privacy as the main reason for creating a special youth corner. Only 27.6 percent of the respondents feared to be attended to by a health professional of opposite sex. Most youth (64.4%) preferred being attended to by doctors. The attitude of health professionals to the youth was reported to be negative by 76.8 percent; however 67.6% of the respondents received the care they needed. Good

therapeutic communication from health professionals was received by 72.4 percent of the respondents.

**DISCUSSION**  
**Utilization of YFRHS**

Our study revealed that only 17.6 percent of the school going youths utilized YFRHS either effectively or averagely. About 79.2 percent utilized the same services poorly while 3.2 percent reported that they had never utilized any service in their life time. This translates into a risk of morbidities and mortality related to inefficiency in reproductive health of the youth.

Sex education was utilized by 88.4 percent of the respondents. Though most youth received sex education through teachers (53.4 percent), most youth preferred being taught by health professionals (41.2 percent). These findings are in line with those of [11] who found out that 91.5 percent of the adolescents favor sex education to be offered by doctors. With these findings, incorporation of sex education into the school curriculum is good but in addition the findings of [12],

a school health professional like school nurse or hired clinicians and doctors should be considered in this subject matter.

Unprotected sexual intercourse was high with only 67.3 percent of the 98 respondents who had sexual intercourse recently did not use condoms during intercourse. This is nearly equal to the estimation by [13], who found out that 70 percent of sexually active youths between 15-24 years in greater Mbale area in Eastern Uganda were ignorant about condom use. This is almost similar to a study conducted in Kaduna state of Nigeria by [14] and found out that only 16.2 percent used condoms for prevention against acquiring STIs. The study also found out that being in a day school and being a male has a possibility of engaging in sexual intercourse within a period of twelve (12) months ( $P=0.018$ ). However this study did not cover perception and reasons behind condom use among these secondary school youth.

Contraceptives were used by 20.3 percent of the 133 female respondents. This supported a research by [15] that contraceptive use in Uganda is low with sexually active unmarried women with higher levels of unmet needs of contraception at 43 percent. This also increases the risk of unintended pregnancy. The study did not find out issues that hinder youth from using contraceptives.

A total 35 out 250 respondents out had ever suffered from a sexually transmitted infection (STI). This translates to every 1 in 7 has ever suffered from an STI. Of these, youths who had their STIs managed by health professionals were 71.4 percent. This may lead to significant morbidity and mortality related to these poorly managed infections and their complications. This is in line with a study by [16] who found out that limited condom use among youth engaging in premarital sex has led to an increase in the prevalence of HIV/AIDS among Nigerian youths.

Antenatal care services utilization was almost three quarters (60.0 percent) of the 15 respondent who had ever been pregnant or impregnated someone though it was not the desired level. This is supported by a study by [17] that utilization of ANC services is not to the recommended level.

HIV/AIDS counseling and testing (HCT) was utilized by 77.6 percent of the respondents. This is contrary to the findings of the study conducted in South Africa among youth aged 15 to 24 years by [18] who found 50.6 percent possibly due to variation in the age bracket. Age and gender were not associated with utilization of this service. The knowledge content about HCT among the youth was not exploited in this study as in [19]. Almost half (52.0%) of the respondents know

places to seek care on sexual violence and nearly a third (30.4%) had ever faced sexual violence. These findings are supported by the study conducted in Gambia in urban secondary schools by [20]; however their study was conducted on girls only and had a higher percentage of 86.8 percent. The percentage of the sexually harassed is lower compared to that reported by Ministry of education in Uganda that 82 percent of secondary school students [21] possibly because of the age bracket considered in this study.

#### **Youths related determinants**

Age determined the ability to be managed by health professionals in case they suffered from STIs and seeking care and assistance when sexually harassed. Adolescents suffering from STIs were managed by health professionals more than other fellow youths 20-24 years ( $P=0.023$ ). This implies that adolescents are more likely to be managed by health professionals as compared to the young adults (20-24 years) if YFRHS are available in places where they seek them from ( $OR=7.667$ ). This may lead to disease progression in these young adults in case they contract one and they possibly present themselves for management with several complications or even die. In addition, adolescents were more likely to seek care and assistance if they are sexually harassed as compared to young adults ( $P=0.033$ ). This is possibly associated with young adults (20-24 years) perceptions that they are grown ups and feel that they can handle such situations individually. This may put them at risks such as contracting STIs and unintended pregnancies in case such undeserved intents are not managed properly. These findings were related those of [22] where they found out that age and gender are related to access to and experience of healthcare though the extent was not measured in their study. Youths in day schools have higher chances of engaging in sexual intercourse than the counterparts in boarding schools ( $OR=1.957$ ). Gender of the respondent was significant in regards sexual intercourse in the last 12 months and males were 1.857 times more likely to engage in sexual intercourse as compared to females. This was contrary to the common perception in the local community than girls engage in sexual intercourse earlier and more often than boys.

Nearly half of the respondents (44.4 percent) have never heard about YFRHS as a whole. These findings are related to those of [23] about knowledge about STIs and services though the findings were not well quantified. Prior knowledge about YFRHS is related to the attendance to HCT ( $P=0.002$ ).

Culture, norms, values and beliefs restricted 24.4 percent of the respondents and fear restricted 15.2 percent. These restrictions may inhibit some youths respectively from using YFRHS. To some extent, the

above study findings are supported by a study conducted by [24] which also found out that cultural norms, values and beliefs on adolescent sexual behavior though their study focused mainly on adolescents and did not quantify the number of affected adolescents. This study did not investigate which values, beliefs and norms restrict the utilization of YFRHS.

Religious affiliations had minimal restrictions on the utilization of YFRHS with only 17.2 percent of the respondents being affected; however these findings are contradicting in that respondents in the same religious affiliation gave opposite answers with some accepting that they are restricted by their faith and others are not. This is possibly based on the personal understanding of the religious subject matter and the strength of their faith. Religious restrictions are not associated with the use contraceptives and condoms among secondary school youths ( $P=0.177$  and  $P=0.754$  respectively). This was contrary to a study by [25] who found out that religion does play a role in the adoption of a contraceptive method.

#### **Health facility and school determinants of utilization of YFRHS**

Availability of YFRHS was related to the possibility of STIs being managed by health professionals (Fischer exact=0.036). It increases the chances by 13.8 percent. More to this, availability of YFRHS in schools favored attendance to HCT and seeking care on sexual violence ( $P=0.032$  and  $P=0.001$ ) respectively; however less than half of the respondents (44.4%) reported finding YFRHS in health facilities they visited and more than half (62.8%) found YFRHS in their schools. This means these services are not available to most youth who need them. These findings relate to those of [26, 5] which stated that health services such as emergency contraception, safe abortion are not simply available to most people including the youth. High costs were incurred by 36.4 percent of the respondents. The exact costs incurred were not exploited in this study whether at the facilities or in the move to access them. These findings agree with those of [27] that cost analysis and analysis of funds may help identify inefficiencies due to shortage or mismanagement.

Most respondents (76.8%) reported a negative attitude by health professionals towards the youth in regards reproductive health issues. These findings agreed with [23] who stated that services are also avoided by the youth due to worries about confidentiality based on service provider behaviors and demographics. There is bias already between the youth and the health professionals. This study did not find out the root cause of the perceived negative attitude of health professionals towards the youth.

#### **CONCLUSION**

Youths Friendly Reproductive Health Services (YFRHS) are under utilized by secondary school youths in Fort Portal Municipality. Every one in three secondary school youths were sexually active with male youth more likely to engage in sexual intercourse than female youth. There is high level of unprotected sexual intercourse among secondary school youth. This puts them at a risk of acquiring STIs and early and unintended pregnancy. In addition to this, every one in seven secondary school youth has ever had STIs. Much as sex education was the most utilized service, there is inefficiency in regards sexual behavior. In order to achieve its effectiveness in secondary schools, health professionals should be considered to teach especially technical issues where youths have misconceptions. In spite of the fact that most youth could identify some of the YFRHS, nearly half of the respondents have never heard about YFRHS. The study found out that there is a relationship about prior knowing about YFRHS and its utilization. Religious affiliations, culture, norms, values and beliefs did not have much effect on the utilization of YFRHS. Special youth corner in health facilities were preferred with professionals who understood the youths' needs. Most respondents faced challenges in accessing YFRHS from health facilities either due to distance or little or no services in the health facilities visited.

The Ministry of Health in Uganda together with other stakeholders in the health sector should increase in supply and coverage in health facilities especially public health facilities so as to improve utilization and increase in accessibility. Youth friendly reproductive healthcare clinics should be operational in all schools and health facilities. In addition to this, focus on older youths (20-24 years) so as to teach and encourage them to use YFRHS. Continuous professional development in all health facilities to all health professional about the needs and challenges of the youths so as to enhance and improve on the services offered to the youths without a biased approach. This can possibly increase the palatability of YFRHS to the youths. Nurses and other health professionals should improve on their approach, care and attitude towards the youths so as to reinforce trust in them in order to encourage accessibility and utilization of YFRHS without fear and suspicion. Mass sensitization about YFRHS using various media channels and in schools so as to improve on the levels of knowledge and understanding about these services. Further research should be conducted on the cost incurred and analysis of funds that could support YFRHS, fears and misconceptions surrounding the use of YFRHS, the roles of the parents, teachers, religious leaders and stakeholders in the support of YFRHS. Research should also be done on abortion and post abortion care among secondary school youth including the age groups left

out in this research. Finally, all schools should at least establish basic YFRHS in their clinics in addition to education with health professionals either employed permanently or hired to handle the technical issues in regards YFRHS and issues faced by the youth.

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