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Utilization of Sexual and Reproductive Health Services in Ethiopia – Does it affect sexual activity among high school students?

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ABSTRACT

Objective: Universal access to Sexual and Reproductive Health (SRH) services for adolescents was added as a target to the revised Millennium Development Goals framework in 2005. However, the utilization of SRH services among adolescents and their sexual activity is not well explored in Ethiopia, with the result that there is no well-designed and sustainable school based intervention for high school students. We aimed to investigate the utilization of sexual and reproductive health services and sexual activity and, to provide evidence based information and recommendations for possible interventions.
Study design: A cross-sectional survey was conducted among 1031 female and male high school students aged 14–19 years in Mekelle town, Tigray Region, North Ethiopia. A total of 1031 students participated. Self-administered questionnaire was used.
Main outcome measures: Utilization of sexual and reproductive health services and sexual activity were investigated using a self-administered questionnaire.
Results: One out of five students had used the SRH services in the past year. The primary reason for visiting the SRH services was to receive information. The mean age for the first sexual intercourse was 15.7 and one-quarter of the students had multiple sexual partners. Unwanted pregnancies and abortions were reported by female students.
Conclusion: SRH services are known and used by students. However, sexual activity at an early age among high school students and unwanted pregnancies and abortions among female students still call for attention. Therefore, providing accurate SRH information on safe sex and enhancing family–student discussion could be a good approach to reach SRH of adolescents.

Introduction

Today's generation of adolescents is the largest in history and more than three fourth of this population lives in developing nations [1,2]. Especially, Sub-Saharan African countries have a larger proportion of adolescents than any region in the world [3]. Ethiopia, located in Sub-Saharan Africa, shows a steady increase in its adolescent population [4]. Adolescents are the greatest hope for turning the tide against *sexually transmitted infections* (STI), *Acquired Immune Deficiency Syndrome* (AIDS) and early pregnancy [5]. However, lack of accurate information about reproductive health and sexuality and lack of access to reproductive health services put adolescents at higher risk, particularly in developing countries [6]. For instance, early sexual initiation [4,7] is very common and adolescent pregnancy remains high globally, with 52 births for every 1000 girls aged 15–19 years in 2007, especially in Sub-Saharan Africa which has the highest rate [8,9]. Having multiple sexual partners was also reported to be very common in Nigeria [7].

Globally, a number of strategies have been adopted. Universal access to Sexual and Reproductive Health (SRH) services for adolescents was added as a target to the revised Millennium Development Goals framework in 2005 [10]. As a result, there is growing recognition of the importance of addressing the sexual and reproductive health of adolescents [11]. Different SRH programs have been initiated at community and school levels in order to reach adolescents. For instance, a school based intervention in Tanzania and India has proven successful in addressing the knowledge of students on sexual and reproductive health [12,13]. Similarly, in Nigeria, a curriculum designed to provide comprehensive health education for urban high school students resulted in delayed initiation of sexual intercourse, reduced number of sexual partners and increased use of condoms [14]. In Ethiopia, a total of 27 youth friendly services throughout the country were implemented [15]. These

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services are integrated with the existing health facilities and provide SRH information and condoms, as well as counseling services related to STI and HIV.

However, the utilization of SRH services among high school students and their sexual activity is not well explored in Ethiopia and the existing studies do not have enough/rich information about the high school adolescents' SRH situation, resulting in the absence of well-designed and sustainable school based intervention for high school students. Therefore, the rationale behind this research was to investigate the utilization of sexual and reproductive health services, and sexual activity and associated factors among high school students, in order to provide evidence based information and recommendations for possible future interventions.

Materials and methods

Subject

A school based cross sectional survey was conducted in October 2009.The study was carried out among high school students in Mekelle town, in the Tigray Region of North Ethiopia. Mekelle town is 780 km north of Addis Ababa. In Mekelle, there are 17 high schools with a total of 17,901 students. Out of the total, 8864 (49%) were males and the rest 9037 (51%) were females. The study population consisted of students from grade 9 up to grade 12 who were attending secondary and preparatory schools.

SRH services in Ethiopia

Adolescent SRH services in Ethiopia are part of the governmental health facility which provides SRH information and condoms, and a counseling service related to STI and HIV. Starting in 2005, different adolescent reproductive health programs have been initiated as youth friendly services and community based adolescent reproductive health promotion by giving more emphasis on building local capacity, and concentrating on the promotion of a healthy psychosocial life (one's ability to adjust and relate the body to its social environment), reduction of harmful practices, reduction of early initiation of sexual activities, unsafe sex and its complications, and builds self esteem and negotiating power by creating access to entrepreneurship opportunities for the young people in the program area. These services are provided by trained diploma nurses and Bsc nurses.

Procedure

Considering the total population of students (n = 17,901) we aimed to include a minimum of 1000 students of 14–19 years of age to represent the total population of students. Sample size was computed using the single population proportion formula [16,17]; we could not find a study similar to our topic of interest, so we assumed the prevalence (p) of utilization of sexual health service in this group as 50%. A z-value of 1.96 was used at 95% CI and d of 4.5% (n = sample size, p = prevalence of utilization of sexual health service among adolescents, d = margin of error).

$$n = Z^2P(1-P)/d^2,\ n = (1.96)^2 \times (0.5)(0.5)/(0.045)^2$$

This resulted in a sample size of 474. With adjustment for 10% non-response and (design effect = 2), n = [(474 + 47.4) × 2], the final sample size was determined at 1042.

To select the students, a multi-stage sampling technique was used. A cluster sampling technique was applied to select 30 classes from 11 high schools which were initially selected randomly from a total of 17 high schools. A total of 30 classes, with an average of 30 students, were randomly selected so as to have a representative sample of the source population. All children in the selected classes were invited to participate in the study.

Before the study began, ethical clearance was obtained from the Ethical Committee of the University of Gondar. Officials at different schools in Mekelle town were then informed through formal letters. Written consent was also obtained from each participant. All had the right to stop answering questions or refuse to participate at all. The purpose of the study was explained to the students and written consent was obtained. None of the students refused to participate. The female and male students were divided into groups and seated at an appropriate distance to keep confidentiality and also to make the students comfortable while completing the questionnaire.

The dependent variables were the utilization of SRH service by adolescents and sexual activity of adolescent students. Utilizing the sexual health service was considered if the student reported having used at least one of the following services: SRH information, counseling services related to STI and HIV, obtaining a condom, post abortion care and gender based violence services. The sexual activity of the adolescent student refers to students who ever had sex.

We also collected data (treated as independent variables) on: age of adolescents, educational level of adolescents, gender of adolescents, age at first sexual intercourse, educational status of parents, family income, parental monitoring, and parent–child communication. Parental monitoring involves whether the parents know their children's whereabouts after school and whether they know their friends and activities. Parent–child communication refers to parents scheduling talks with their children, talking about everyday opportunities or planning an activity for their children and also talking or discussing about new situations that their adolescent children face, especially on sex-related issues.

Instrument

The data were collected through a self-administered questionnaire in the local language. We pre-tested the questionnaire on several students before the actual data collection. After the pretest, the questionnaire was changed, especially the skip patterns were corrected based on the pretest finding and also an average time (30 minutes) was allocated for filling in the questionnaire. Additionally, unclear words and repeated questions were identified during pretesting and then changed accordingly. The collected data were checked for completeness each day by the principal investigator and supervisor after the data collection.

Data analysis

After coding, the data were entered, using EPI INFO version 2002 and analyzed by using Statistical Package for Social Sciences (SPSS) version 16 [18]. To investigate which factors predicted the use of SRH service and sexual activity, we first tested univariate associations between the independent variables and SRH use as well as sexual activity of students, using a chi-squared test for categorical variables and linear regression analysis for numerical data. All variables were then entered into a multivariate logistical regression model, using the enter method at a 95% confidence interval to determine the actual predictors for the problem. However, effect modification was not calculated in a multivariate logistical regression.

Results

Socio-demographic characteristics

A total of 1042 students participated in the study, 523 (51%) were female and 508 (49%) male (Table 1). Even though the response rate