Premarital sexual activity among unmarried adolescents in northern Ethiopia: a cross-sectional study

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ABSTRACT

Background: Sexual activity can expose adolescents to the risks of unintended pregnancy, unsafe abortion and sexually transmitted infections including HIV/AIDS. This risk is magnified for girls. The objective of the study is to determine the magnitude and correlates of premarital sexual activity among unmarried female adolescents in northern Ethiopia.
Methods: The study employed a cross sectional study design conducted at comprehensive secondary school among unmarried female adolescents in Maichew town, northern Ethiopia. A pre-tested structured questionnaire was used for data collection. Data were analyzed using descriptive statistics and multivariable logistic regression.
Results: A total of 624 secondary and preparatory school never married female adolescents were included in this study. About 183 (29.3%) reported to have started sexual intercourse. Mean age at first sexual intercourse was 16.6 years (SD 1.81). About 38% of the girls reported that they had used condom at their last sexual activity. In multivariable analysis, older age, living with parents, parental residence, elder sister or friends who had started premarital sexual activity, and peer influence, were independently associated with sexual initiation.
Conclusions: The study of this finding clearly demonstrated that rural adolescents initiate sexual activity early with limited protection from infections and unintended pregnancies. Community and school based sexual health education is recommended.

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Introduction

The World Health Organization (WHO) defines an adolescent as a young person between the ages of 10 and 19 years; and adolescence, the stage that involves appearance of secondary sexual characteristics to sexual and reproductive maturity, and transition from total socioeconomic dependence to relative independence [1]. Adolescents are a growing and larger segment of the population of developing countries. Of an estimated 1.2 billion young people in the world, 85% live in developing countries [2]. A significant number of adolescents all over the world are sexually active and an increasing proportion of their sexual activity is occurring outside marriage [3,4]. Similarly, several studies in sub-Saharan Africa have documented high and increasing premarital sexual activity among

adolescents [5]. Research reports indicate that young women are increasingly becoming sexually active at an early age, increasing the risks of unplanned pregnancy and exposure to HIV infections [4,6,7].

Similarly, in Ethiopia adolescents engage in premarital sexual relationship before marriage or earlier [8,9]. Studies have shown that 36.1% of in school female adolescents in Woreta town, and 12.6% of school female adolescents in Addis Ababa had experienced sexual intercourse [10,11]. Young persons' relative lack of experience in sexual and reproductive health matters and the cultural stigma attached to their sexual activity creates vulnerability [12,13].

Early sexual activity can expose girls to the risks of unintended pregnancy, and sexually transmitted infections including HIV/AIDS. Reports indicate that young women initiate sexual activity at an earlier age compared with boys due to factors such as cultural norms, peer pressure and economic pressure [14,15] or a combination thereof. In Ethiopia, only few studies have documented the sexual behavior of rural girls. The objective of this study is to investigate premarital sexual activity among unmarried female adolescents in Maichew Town, northern Ethiopia.

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Methods

Study setting and population

The study area, Maichew, is the capital of Southern Tigray province of Tigray region, northern Ethiopia. It is found at 662 km north of Addis Ababa along the main highway to Mekele. The population of Maichew town was 23,484 in the 2007 census, of which 11,057 and 12,427 were males and females respectively [16]. In the town there are six primary schools (Grade 1–8), one Secondary School, four colleges including the two private colleges. The population of this study included unmarried female adolescents in the age range of 15–20 years.

Study design

A cross-sectional study design method was employed. The sample size of the study was determined using the formula for estimation of a single population proportion [17]. We assumed the proportion of female adolescents who had sexual activities before marriage as 50% since we did not have information regarding the extent of the problem, with corresponding to 95% confidence level, and a margin of error of 0.04. The resulting sample size was 600. A 5% contingency was added for non-response, providing an overall sample size of 630. The study was conducted in January 2008.

Sampling technique/procedure

A probability sampling method was used for the selection of the study participants. To ensure that each grade level (Grade 9, Grade 10, Grade 11 and Grade 12) is adequately represented in the sample, proportional stratified random sampling method was employed. Accordingly, in the school the total female students were initially stratified in to four groups (strata): Grade 9, Grade 10, Grade 11 and Grade 12 female students. Then the total sample size of the study subjects was distributed to each strata using probability proportional to their size (PPS). Subsequently a sampling frame containing list of female students, was prepared from enrolment list of students which was obtained from school records. Finally, systematic random sampling method was used to select respondents with a sampling interval of three from the list of female students in each stratum. Thus, 259 unmarried female students from Grade 9; 183 from Grade 10; 67 from Grade 11; and 121 from Grade 12 were randomly selected.

Data collection and procedures

The questionnaire was translated from English to Tigrigna. Prior to the start of the fieldwork, the questionnaire was pre-tested among 20 respondents outside the study area. After pre-testing of the questionnaire was completed, the researcher modified some questions (clarity, and wording of items) based on feedback from the pre-test. Ten female data collectors who completed Grade 10; and who could speak both Amharic and Tigrigna fluently were recruited. Data collectors were given two days intensive training before the actual work about the aim of the study, research procedures, data collection technique, content of the questionnaire (by going through each question of the questionnaire) and clarification was given on each question to the data collectors.

The administration of the questionnaire was done with the help of 10 data collectors. Before distribution of the questionnaire, the objective of the study was explained clearly to the respondents. The consent of each respondent was asked by the data collectors and sufficient time was given to contemplate on the implication of the item and provide accurate information. The respondents congregated in different classrooms of the school to complete the questionnaire Moreover, conducive environment and adequate time was arranged for participants in order to avoid hurried responses. During the actual data collection, the principal investigator checked the activities of each data collector in the school. The necessary feedback was also offered to the data collectors.

Data management and analysis

After data collection, each questionnaire was checked visually for completeness. Data were entered, cleaned, and coded using SPSS version 16. Descriptive analysis was used to describe the profile of the respondents' parental characteristics, individual characteristics, exposure related factors, and sexual activities of the respondents. Bivariate analysis was used to assess the relationship of several independent variables with the dependent variable by using chi-square test. Multivariable analysis using a binary logistic regression model was used to measure the degree of the risk of attributes to each factor and controlling possible intervening variables.

Ethical considerations

Ethical clearance was obtained from the Institute of Population Studies of Addis Ababa University. Furthermore, relevant administrative permission to execute the study was obtained from the education bureau of the district. After explaining the purpose of the study, verbal consent was asked from all participants prior to their participation in this study. Furthermore, the respondents were informed that their participation in the study is voluntary and that they would not be obligated to provide answers to any question (s) with which they are uncomfortable.

Result

Socio-demographic characteristics of the study subject

A total of 624 secondary (9th and 10th grade class) and preparatory (11th and 12th grade are considered as college preparatory) school female adolescents were included in this study giving a response rate of 95%. The age range of the sample was 5 (15–20 years), where 93.8% lay in the age range of 15–19. The mean age of the respondents was 17.2 years. About 41% and 29.2% of respondents were attending grade 9 and grade 10, respectively. Table 1 displays the background characteristics of the respondents.

Sexual activities of unmarried female adolescents

Out of the total 624 sample never married female adolescents, 29.3% (183) reported to have started sexual intercourse. The age range of the respondents at first sexual activity was 14–20 years, respectively. Mean age at first sexual intercourse was 16.6 years (SD 1.81).

Among the respondents who had started sexual activity, 50.3% initiated sexual activity while they were between the ages of 14 and 16 years, whereas 49.7% initiated sexual activity between the ages of 17 and 20 years. With regard to first sexual partners of respondents, 32.8% and 20.2% of adolescents reported they had first sexual intercourse with their boyfriend and fiancé, respectively (Table 2). The most important reason for the first sexual intercourse of the respondents was to get married (33.9%), 29.5% due to love (29.5%), 9.3% to get money (9.3%) or coercion (10.5%).

The mean age of respondents' first sexual partner at the time of their first sexual activity was 22.2 years with standard deviation of 4 years. The majority of respondents (83.1%) had experienced sexual activity with only one partner. The rest 10.9% and 6% of girls had experienced sexual activity with two (10.9%), and three or more partners (6%). Girls who had sexual intercourse were also