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### INDUCED ABORTION AND ASSOCIATED FACTORS AMONG FEMALE HIGH SCHOOL STUDENTS IN ILU-ABABOR ZONE, OROMIYA NATIONAL REGIONAL STATE, ETHIOPIA

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#### ABSTRACT

**Background:** Unwanted pregnancy is the major cause of induced abortion, one of the leading causes of maternal mortality and morbidity in the world. Hundreds of thousands of women become pregnant without intending to, and many of them decide to end the pregnancies into abortion. Youth are more susceptible to unwanted pregnancies; this may be explained by the fact that premarital sexual activity is very common and reported to be on the rise in all parts of the world. This could be explained by the fact that youths are facing various problems with regards to their reproductive health needs including contraceptive use e.g. lack of information, misinformation, fear of side effects as well as social, cultural and economic barriers in accessing the family planning services, economic problems, violence as well as cultural and social beliefs. **Objective:** The study was assessed the magnitude of induced abortion among female students in Ilu-Ababor Zone. Specifically the study was tried to examine the association between the magnitude of induced abortion among female students with other factors like contraceptive knowledge and use, socio demographic characteristics, socio cultural factors and sexual factors. **Methodology:** A cross sectional study, was conducted among 844 female students in Ilu-Ababor Zone using a Semi structured questionnaire. **Result and discussion:** A total of 844 of female students were interviewed and 837 of them were responded for the questionnaire with response rate of 99.2%.. Among those who exposed to sexual practices 106 (42.9%) had history of abortion. From the total that had history of abortion 82(77.4%) was induced in nature and only 24(23.6%) was spontaneous. **Conclusion and recommendation:** Although the majority of participants had no history of sexual exposure, significant number of them had history of abortion. So, since they were students and not yet prepared to bring child this can affect them socially, academically, morally and economically. Thus, youth centered services should have to be available for them at each high school.

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## INTROCTION METHODOLOGY

The study was conducted on high schools that are located in Ilu ababor zone from May 2016-June 2016. Ilu ababor zone is one of the zones in the Oromiya regional state located in southwestern part of Ethiopia. The capital of the zone is Mettu, which is located 600km from Addis Ababa. The Zone is bounded in north- west Wollega, south-SNNP, west-Gambella region, and east-Jimma Zone. There are 22 rural woreda and two town administrations. In this zone there are 488 rural kebeles and 31 kebeles of towns. The zone has 1,432,607 populations (1,281,438 rural population and 151,169-town population). The health coverage of the Zone is 102.9%. There are 718 schools in this zone. The climatic condition of the zone is rainfall 1150 mm-2200 mm, temperature 10.6-26c<sup>0</sup> high land 16% lowland 23%woinedega 61%. There are 46 governmental health centers (all types), 488 health posts, one referral hospital, two district hospitals in the zone. Except seven up graded health centers, all are currently functional.

Two hundred eleven private health sectors are found in this zone (two higher clinics and others). For the purpose of this study only governmental schools were selected. The target populations for the study were female students at high schools in Ilu-Ababor Zone. The study was school based cross-sectional study conducted from May –to- June 2016. Sample size was calculated using the formula for single proportion:

$$n = \left( \frac{z}{2} \right)^2 \frac{p(1-p)}{d^2}$$

Where: P= an estimate of prevalence, n= maximum sample size, d= margin of error tolerated, z= the confidence interval (95%), non-response rate= 10%.

$$n = (1.96)^2 \frac{0.5(1-0.5)}{0.05^2}$$

$$n = (1.96)^2 \frac{0.5(1-0.5)}{0.05^2}$$

$$= 384$$

With 10% non-response rate= 384 \*10%=422, considering design effect and multiplied by 2, Therefore, the estimated sample size was 844 female students. Stratified sampling technique was used in selecting the study sample. Twenty-four (24) high schools in Ilu-Ababor Zone were randomly selected using a lottery method. Then from the selected high schools strata was done according to grades and sections and finally Proportional allocation to size was employed for each grade and sections for each high school. Data were collected using semi structured questionnaire through self administered questionnaire. Twelve Diploma nurses were recruited as data collectors. Three BSc Nurses were also recruited to supervise the overall data collection process. Data from the questionnaire were cleaned and verified to minimize entry errors, outliers and missing values. Responses from questionnaire were coded and the codes were saved in the code book and used during the interpretation. Collected data were entered into the computer by using EPI Data (Version 3.1), in order to ensure its accuracy. Data cleaning was done to check for the forgotten entries, consistency and outliers. Data analysis was done by using Statistical Package for social scientist (SPSS) software. Frequencies of variables were generated; Tabulation and percentages were used to illustrate study findings. A three days training was given to the supervisors and the data collectors on the objectives of the study. The questionnaire was pre-tested on 5% of individuals out of study area. Discussion was held based on the results of the pre-testing to make the appropriate corrections. The questionnaire was prepared in English and translated to Afan Oromo and then back to English. During data collection, questionnaires were given a similar code checked for completeness by data collectors, supervisors and principal investigators on daily bases and problems encountered was discussed among the survey team and solved in timely manner. Supervision of data collectors were included observation during actual data collection, checking participants' eligibility and random revisiting on 5% of interviewed participants. During data coding and entry adherence to similar code given during collection was strictly followed and errors identified were tracked back using similar code given to the questionnaire. During data analysis, data were analyzed after thorough cleaning of data using updated computer software. The study was obtained ethical clearance from ethical committee of Mettu University. Permission paper was obtained from Mettu University research Directorate and Zonal Health administration. Similarly after clear discussion about the actual study oral informed consent was obtained from each study subjects while the study subjects right to refuse was respected. Different measures were taken to assure the confidentiality of study subject's response such as writing their names or any identification in the questionnaire was not required.

## RESULTS AND DISCUSSIO

A total of 844 of female students were interviewed and 837 of them were responded for the questionnaire with response rate of 99.2%.. The mean (+SD) age of the study population was 29.3 (+4.23) years and 682 (81.48%) of them were between 15-24 years..Great majorities, 699(83 .5) of the respondents were Oromo ethnics groups (Table 1).

**Table-1: Socio-demographic characteristics of female high school students , Ilu-Ababor Zone, Oromia National Regional State, south west Ethiopia, May, 2016.**

Variable	Number	Percent
<i>Age</i>		
15-24	682	81.48
25-34	153	18.3
>35	2	0.24
<i>Total</i>	837	100
<i>Religion</i>		
Orthodox	324	38.7
Muslim	363	43.4
Protestant	122	30.2
others	38	14.6
<i>Ethnicity</i>		
Oromo	699	83.5
Amhara	74	8.84
Others	64	7.65
<i>Grade</i>		
9-10	432	51.6
11-12	405	48.4
<i>Marital status</i>		
Single	823	98.3
Married	12	1.4
Others	2	0.24

From the total respondents only 34(4.3%) exposed to sex before 16 age. In this study all of the respondents heard about family planning methods. Great majority 822(98.2%) of the respondents knew injectable contraceptives 572 (62.4%) followed by oral contraceptives. In this study from the total respondents who exposed to sex before 16, 29(85.3) of them utilized any type of contraceptive. Twenty of them (58.9%) of them used injectable contraceptives. In this study 247(29.5%) of the respondents had history of sexual exposure. Among those who exposed to sexual practices 106 (42.9%) had history of abortion. From the total that had history of abortion 82(77.4%) was induced in nature and only 24(23.6%) was spontaneous. Those who started sex before 16 age were 3.52 times more likely to disclose to have abortion when compared to those who did not started (OR=3.52; 95% CI, 2.50(2.2, 6.38). Those who do not use any types of contraceptives were 1.22 times more likely to have abortion when compared to their counter parts (OR =1.22) 95% CI, (1.18, 3.89).

**Table-2: Factors Associated with abortion among female high school students , Ilu-Ababor Zone, Oromia National Regional State, south west Ethiopia, May 2016.**

Variable	Crude OR(95% CI)	Adjusted OR(95% CI)
<i>Age</i>		
15-24	1	1
25-34	1.207(.510,0.32)	.354(.105, 0.83)
>35	1.11(.14-2.21)	.411(.13, 1.71)
<i>Religion</i>		
Orthodox	1	1
Muslim	1.207(.510,0.32)	1.207(.510,0.32)
Protestant	1.11(.14-2.21)	1.11(.14-2.21)
others	1.26(0.28,3.21)	1.26(0.28,3.21)
<i>Ethnicity</i>		
Oromo	1	1
Amhara	1.306(.510,0.42)	.254(.105, 0.83)
Others	1.21(.13-2.21)	.401(.13, 1.51)
<i>Grade</i>		
9-10	1.23(.11,0.22)	1.23(.11,0.22)
11-12	1	1
<i>Marital status</i>		
Single	1	1
Married	1.401(.510,0.32)	1.207(.511,0.22)
Others	1.01(.13-2.21)	1.11(.14-2.21)

Variable	Crude OR(95% CI)	Adjusted OR (95% CI)
Earlyly sexual exposure(<16 Years)		
Yes	3.33(2.62,14.37)	2.50(2.3, 5.38)*
No	1	1
Sexual exposure		
Yes	7.0 (1.6230.26)	1.297(.38, 3.71)
No	1	
History of pregnancy		
Yes	4.0 (1.44,17.34)	2.34 (1.22, 3.89)*
No	1	1

In this study the rate of awareness on family planning was very high. Great majority 822(98.2%) of the respondents knew injectable contraceptives 572 (62.4%) followed by oral contraceptives. In this study 247(29.5%) of the respondents had history of sexual exposure. This was consistent with study done in Ethiopia (Solomon W. Mesganaw F. 2006).

Among those who exposed to sexual practices 106 (42.9%) had history of abortion. From the total that had history of abortion 82(77.4%) was induced in nature and only 24(23.6%) was spontaneous. It is different from study conducted in Tanzania (Vibeke R 2000). Difference is may be due to geographical area differences as well as due to study period.

Those who started sex before 16 age were 3.52 times more likely to disclose to have abortion when compared to those who did not started (OR=3.52; 95% CI, 2.50(2.2, 6.38). Those who who donot use any types of contraceptives were 1.22 times more likely to have abortion when compared to their counter parts (OR =1.22) 95%CI, (1.18, 3.89). it is consistent with other findings done else were. Most of them were teenagers (OR 4.2 95% CI 1.4,10, 5), those married at the age of less than 20 years (OR 2.1 95%CI 1.9, 4.7), and currently unmarried (OR 1.7 95% CI 1.2, 2.5) have been reported to have higher chance of experiencing unwanted pregnancy (Solomon W. Mesganaw F. 2006).

## CONCLUSSION AND RECOMMENDATIONS

Even though great majorities of the study participants had awareness on family planning still significant number of the student had history of abortion either induced or spontaneous..In this study earlyly initiation of sex, marital status and history of family planning uses were significantly associated with induced abortion . Although the majority of participants had no history of sexual exposure, significant number of them had history of abortion. So, since they were students and not yet prepared to bring child this can affect them socially, academically, morally and economically. Thus, youth centered services should have to be available for them at each high school.

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