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Original Article

Reproductive health behaviour of street youth and associated factors in Gondar city, Northwest Ethiopia

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ABSTRACT

Background: Street youth are predisposed to sexual and reproductive health challenges. Most of the street children live in severe deprivation, which make them liable to various forms of health risks. Street youth have risky sexual behaviours that increase the likelihood of adverse sexual and reproductive health consequences. **Aim:** This study was conducted to assess reproductive health behaviour and needs of street youth in Gondar city, North West Ethiopia. **Methods:** A cross-sectional quantitative study supplemented with qualitative design was conducted in July 2012 among 463 street youth. Quantitative data was checked, coded and entered in to EPI info version 6.04. Data was analysed using the SPSS version 20 statistical program. Descriptive statistics were used for data summarization and presentation. Bivariate and multivariate logistic regression analyses were used to assess associations. **Results:** Almost one-third (30.5%), of the study group had started sexual intercourse. Of youth who had been sexually active, 62.4% had more than one lifetime sexual partner and the mean number of sexual partners was 3.15± 4.5. Risky sexual behaviour were associated with age, sex, duration on the street, alcohol drinking, cigarette smoking and khat chewing. Among the sexually active respondents, 24.8% had history of sexually transmitted infections, 37.5% unwanted pregnancy, 40.6% had sexual intercourse with sex workers. Health services utilization of street youth was 15.1%. **Conclusion**: Significant number of street youth engages in high risk sexual practices. This fact calls for a co-ordinated and comprehensive effort by responsible organizations to mobilize peer based interventions to bring behavioural change in reducing risky sexual practices.

Key words: Reproductive health behaviour, street youth, sexual practices, infection, Ethiopia

INTRODUCTION

More than half of the world's population is below the age of 25, and four out of five young people live in developing countries.[1-4] In Ethiopia, the sexual and reproductive health of young people has become a major public concern due to a high prevalence of sexually transmitted infections (STIs) like HIV/AIDS among young people.[1-4]

There are several and complex factors for youth vulnerability to sexual and reproductive health challenges. Lack of awareness and lack of correct information

about the risks of unwanted pregnancies and STIs are more common among this group.[2-7] Peer and other social pressures, poverty and traditional/cultural norms predispose them to many risks.[2-7] There is an increasing number of street children in Ethiopia. This is a major social problem. According to UNICEF and other actively engaged NGOs, there are approximately 500,000-700,000 street youth nationally, and an additional 1 million are at risk for streetism.[8]

Street youth are exposed to situations that make them vulnerable to sexual and reproductive health problems on a day to day basis.[9-12] A risky sexual behaviour is one that increases the likelihood of adverse sexual and reproductive health consequences.[9-12] Available data shows that HIV sero-prevalence rates for street children are 10-25 times higher than non-street adolescents.[13-19] This is because street children are reported to become sexually active earlier than the other groups of adolescents.[13-19] They also engage in sex with many sexual partners and are likely to be coerced into sexual relationships to ensure their survival.[13-19] They use condoms inconsistently and get inadequate information about sexuality.[13-19]

Almost all studies conducted so far in Ethiopia in the area of sexuality are among high school and college students. Though there are very limited number of studies conducted on street youth, most were carried out in bigger urban centres.[10,20]To date, little is known about the sexuality of street youth, in general the reproductive health behaviour of this group in particular. Therefore, this study is designed to give insight into reproductive health behaviour pattern of street youth with emphasis on sexual risk behaviour and associated factors and health service utilization patterns to generate relevant information that can help policy makers to design appropriate reproductive health programs for this disadvantaged segment of the population.

METHODOLOGY

The study was conducted among street youth in Gondar city, North West Ethiopia. Gondar city is located 748 kilometres away from the capital city of Ethiopia, Addis Ababa.. According to statistics reported in 2007 census, the city has a total population of 206,987. The total number of street youth in the city has estimated to be 1800 according to office of Labour and Social Affairs in Gondar city. A cross- sectional quantitative study supplemented by qualitative phenomenological study design with focus group discussions comprising 8-12 street youth was conducted in July 2012. Source population were all street youth aged 10-24 years residing in Gondar city. Study population included sampled street youth who have resided in Gondar city for at least two months. All street youth who are unable to hear or mentally challenged were excluded from the study. The minimum required sample size was calculated using electronic sample size calculator with 3.5% margin of error, 95% confidence level. Since there is no previous study conducted in Ethiopia in this specific study group which comprises both sexes to the knowledge of the investigator, 50% prevalence was taken. Sample size was 472 (including 10% non response rate). The total number of street youth who answered the questionnaire was 463, making the response rate of the study 98.1%. To develop the sampling frame, complete census was done for two days during the night and day time to get the required sample size among street youth aged 10-24 years in the city. Then the study subjects were selected by a systematic sampling method from the list of sampling frame. The study subjects were identified by using key informants on the day of the survey and those, who are eligible for the study, were identified and interviewed by the data collector.

Operational definitions: Risky sexual behaviors (practice): Youth who had sex earlier than 18 years of age, or have sex with non-regular sexual partner or exchange sex for money (money for sex), sexual activity under the influence of substances, or have more than one sexual partner or use condoms inconsistently.

Street youth: In this study, youth is defined as the people between age 10 and 24 years comprising both ‘on’ and ‘off’ street type. Youth, adolescent and children are used interchangeably.

Data were collected by structured pre-tested questionnaire which was adopted from different studies.[12,18,19,21] The data for the quantitative section of the study were

collected by 10 trained data collectors (8 male and 2 female) for 5 days who were 12 grades complete with some experience in data collection in previous studies and 3 supervisors. The data collection was conducted within 5 days to minimize double counting and to insure coverage and accuracy of the study subjects because of the nature of street youth. Data was collected by interview method using structured questionnaire. Data collection facilitators were trained. Male interviewers for male respondents and female interviewers for female respondents were assigned. Qualitative data was collected through focus group discussions comprising 8-12 street youth. After collection of quantitative data, three focus group discussions were conducted in order to generate more information concerning factors that influence sexual behaviours of street youth among purposively selected street youth guided by semi-structured questions. Sex, age, residence and educational back ground were considered during participants selection.

The quality of data was assured through careful design, translation and back translation of the questionnaire, pre-test of the questionnaire, selection and proper training of the interviewers and supervisors, close supervision of data collectors by the first author, checking for completeness and consistency and computer data cleaning and edition.

Ethical clearance was obtained from the institutional review board of University of Gondar. Besides this, permission from Gondar city Labor and Social Affairs office was secured. At the time of data collection respondents were recruited based on their willingness. All the study participants were informed about the objective of the study, and verbal consent was obtained before the data collection. They were also informed about their right of not participating in the study or withdrawing at any time. Privacy and confidentiality of the information was assured and collected anonymously.

Statistical analysis

Quantitative data was checked, coded and entered in to EPI info version 6.04. Data was analysed using the SPSS version 20 statistical program. Descriptive statistics were used. To find association between the outcome and explanatory variable, bivariate analysis and model fit Hosmer and Lemeshow was used. Stepwise logistic regression was done to control the effect of confounding variables. The qualitative data was analyzed according to the predetermined themes.

RESULTS

A total of 463 street youth participated in the study with a response rate of 98.1%. The majority were males 401 (86.6%) and 62 (13.4%) were females. The mean age was 17.6 ± 3.2 (median=18.0). The majority, 259 (56%) were in the age group of 15 and 19 years.

The majority of study participants were orthodox Christians, 458 (98.9%), and the predominant ethnic group was Amhara, 461 (99.6%). Most participants 210 (45.4%) had educational status between 1-6 grade. Most respondents participants 249 (53.8 %) earn on average greater than 20 birr per day. The participants left their home for many reasons: Among the reasons mentioned were, to look for a job 130 (28.1%), poverty 109 (23.5%) and escape from family disharmony 94 (20.3%) (table 1).

Reproductive and sexual health behaviour

Out of the total respondents, 141 (30.5%) have reportedly had sex in their lifetime. Among these 91 (64.5%) were boys and 50 (35.5%) were girls. The majority of sexually active respondents 116 (82.3%) were never married. The mean and median ages of the respondents at sexual debut were found to be 16.5 ±2.3 and 17.0 years of age for both sexes. Among sexually active study participants, 93 (65.9%) started sexual intercourse earlier than 18 years of age. Of youth who had been sexually active, 88 (62.4%) had more than one lifetime sexual partner and the mean number of sexual partners for them were 3.15 ± 4.5. Out of those who were currently sexually active males, 54 (40.6%) reported that they had sexual intercourse with sex workers in the past 12 months. Among the sexually active respondents, 104 (73.8%) had ever used condom and 65 (46.1%) of these used condoms consistently.

Out of the total study subjects, 375 (81.0%) had reported that they know at least one means of preventing pregnancy. Condom

was the most recognized contraceptive method that was reported by 80 (56.7%) respondents. Of those sexually active street youth, 81(57.4%) had ever used modern contraceptives. Out of sexually active females, 9 (37.5%) had a history of unintended pregnancy. Thirty five (24.8%) of the total sexually active street youth reported history of signs and /or symptoms of STIs (table 2).

Table 1: Socio-demographic characteristics among street youth in Gondar city (n=463)

Variables	Number (%)
Sex	
Male	401(86.6)
Female	62 (13.4)
Age	
10-14	77 (16.6)
15-19	259 (55.9)
20-24	127(27.4)
Religion	
Orthodox Christians	458(98.9)
Muslims	5(1.1)
Ethnicity	
Amhara	461(99.6)
Tigrie	1(0.2)
Others	1(0.2)
Educational Status	
~~No~~ formal education	121(26.1)
Grade 1-6	210 (45.4)
Grade 7-12	132(28.5)
Average income per day	
Less than10 birr	42(9.1)
10-20 birr	172(37)
> 20 birr	249(53.8)
Reasons to be on the street	
Looking for a job	130(28.1)
Poverty	109(23.5)
Family disharmony	94(20.3)
Death of parents	64(13.8)
Peer pressure	42(9.1)
Other	24(5.2)

Factor associated with sexual behaviour of street youth in Gondar city

In logistic regression analysis, risky sexual behaviours were significantly associated with age, duration on the street, alcohol drinking, cigarette smoking and chat chewing**.** Educational status, sex, former residence, type of street life, and average income per day of the respondents did not show significant association with ever having sex (table 3).

Health service utilization

Out of 463 participants, 70 (15.1%) of them reported that they visited health institutions in the three months period prior to the study. More than two third, 49(70%) of those who visit health institutions had reported that they had visited the health

institutions for reproductive health problems such as STIs 22(31.4%), for counselling 14(20 %), for family planning 11(15.7%). The majority, 44 (62.9%) have visited public health institutions. Among the common reasons mentioned for preference to visit such health institutions; free or low cost of treatment was mentioned by 50 (71.4%) of the respondents. very expensive health service was the major barrier mentioned by 213 (46%) of the respondents for health service utilization (table-4).

Table 2: Reproductive health behaviours and practices of street youth in Gondar city

Variable	**Number (%)**
Ever had sexual intercourse	
Yes	141(30.5)
No	322(69.5)
Life time number of sexual partner (141)	
One	53(37.6)
Two and above	88(62.4)
Ever use of condoms (141)	
Yes	104(73.8)
No	37(26.2)
Consistency of condoms use in the last12 month (141)	
Yes	65(46.1)
No	76(53.9)
Had used modern contraceptive methods	
Yes	81(57.4)
No	60(42.6)
Know means of avoiding pregnancy	
Yes	375(81)
No	88(19)
Types of contraceptive used n=141	
Condom	80 (56. 7)
Injectables	30 (21.4)
Pills	24 (17)
Implants	6 (4.2)
Sex with CSW in the last 12 month for male (n=91)	
Yes	54(59.3)
No	37(40.7)
Had experienced pregnancy (50)	
Yes	24(48)
No	26(52)
Rape in the last 12 months (n =74)	
Yes	26(35.1)
No	48(64.9)
Ever had unwanted pregnancy (24)	
Yes	9(37.5)
No	15(62.5)
Induced abortion (n=9)	
Yes	5(55.6)
No	4 (44.4)
The history of signs and /or symptoms of STIs (141)	
Yes	35(24.8%)
No	106(75.2%)

Table 3: Logistic regression analysis of socio-demographic variables and sexual behaviour of street youth in Gondar town

Factors	Ever had sexual intercourse			Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes	No	Total		
Age					
10-14	7(9.1%)	70(90.9%)	77	1	1
15-19	57(24.3%)	186(75.7%)	243	3.2(1.4,7.4)	3(1.12, 8)
20-24	87(55.9%)	56(44.1%)	143	12.6(5.4, 29%)*	6(2.2,17) **
Educational Status					
Illiterate	42(34.7%)	79(65.3%)	121	1.1(0.6,1.8)	1.4(0.68, 2.7%)
Grade 1-6	55(26.2%)	155(73.8%)	210	0.7(0.44,1.4)	0.9(.52,1.81)
Grade 7-12	44(33.3)	88(66.7%)	132	1	1
Average income per day					
Less than10 birr	8(19%)	34(81%)	42	1	1
10-20 birr	38(22.1%)	34(77.9%)	172	1.2(0.52,2.8)	1.9(0.65,5.5)
> 20 birr	95(38.2%)	154(61.8%)	249	2.6(1.17,5.9) *	1.8(0.65,5.0)
Former residence					
Gondar	27(29%)	66(71.0%)	93	1	1
Outside Gondar	114(30.8%)	256(69.2%)	370	1.1(0.66,1.8) *	1.8(0.89,3.6)
Duration on the street					
≤ 12 months	34(18.7%)	148(81.3)	182	1	1
> 12 months	107 (38.1%)	174(61.9%)	281	2.7(1.72, 4.2) *	1.8(1.04, 3.3) **
Type of street life					
On the street	40(24%)	127(76%)	167	1	1
Of the street	101(34.1%)	195(65.9%)	296	1.6(1.1, 2.5) *	1.0(0.56,1.82)
Alcohol drinking					
Never	54(17.8%)	250(82.2%)	304	1	1
Yes	87(54.7%)	72(45.3%)	159	5.6(3.6, 8.6) *	4.6(2.7, 7.8%)* *
Cigarette smoking					
Never	108(25.7%)	312(74.3%)	420	1	1
Yes	33(76.7%)	10(23.3%)	43	9.5(5.0, 20) *	3.5(1.3, 9.4) **
Khat chewing					
Never	112(26.4%)	313(73.6%)	425	1	1
Yes	29(76.3%)	9(23.7%)	38	9(4.1, 19) *	3.3(1.2,9) **

**** Remained significance when adjusted for other variables in the table**

Results of focus group discussion

A total of two focus group discussions were held each consisting 8-12 discussants with age range from 15-19 years. The discussion centred on "factors that influence sexual behaviour of street youth" such as causes and consequences of early sex, multiple sexual partners, use of condoms and substances abuse by the youth were assessed.

Majority of the participants stated condoms are one of the preventive methods for HIV and other STIs; however it is not usually used because of perceived reduction in sexual pleasure and over indulgence in alcohol. Female discussants reported that males are dominant to determine whether to use condoms or not. Because of this reason even if the females choose to use condoms, the males override their decision.

The participants in the two focus group discussions reported that the most common age at sexual commencement is 12 for girls and 13 years for boys. Majority of participants stated that girls start sex earlier than boys at age of 10. According to the participants, the main reason for early sex are peer pressure, experimentation by the youth, alcohol and khat abuse, rape and economic problems (sex for the exchange of money for female only). The participants also mentioned that due to early sex females are exposed to STIs and unwanted pregnancy. One of the factors facilitating the spread of HIV is having

multiple sexual partners and having sex with out condoms. It was discussed that it is common for both male and female youth to have more than one sexual partner, especially for females. The main reasons mentioned for having more than one sexual partner were excessive sexual urge as a result of abuse of substances, rape and practice sex for the exchange of money.

Table 4: Health services utilization of street youth in Gondar town

Variable	Number (%)
Had visited health institution (n=463)	
Yes	70(15.1%)
No	393(84.9%)
The reason for visit (n=70)	
Had STIs	22(32.4%)
For family planning	11(15.7%)
For abortion	1(1.4%)
For delivery	1(1.4%)
HIV/AIDS counselling	14(20%)
Other	21(4.5%)
Place of visited health institution (n=70)	
Pharmacy	9(12.9%)
Private health sector	811.4%)
Public health institution	44(62.9%)
Family Guidance clinic	9(12.9%)
Barriers of health services utilization (n=463)	
Expensive service	213(46%)
Poor handling by health workers	89(19.2%)
Much waiting time	43(9.3%)
Health institutions inconvenient	44(9.5%)
Too far	44(9.5%)
Fail to keep privacy and confidentiality	22(4.8%)
Others	32 (6.9%)

N.B: Due to multiple answers the percentage is >100%

Both male and female discussants also said *"being hopeless and stressed is the main reason for unsafe sexual behavior as sex is one method that enables them to forget the reality".* Another issue discussed by the participants as a cause of street youth sexuality is lack of job and excess free time. All the participants agreed on the fact that having sex with many sexual partners and sex with out condoms predispose to HIV and other STIs.

Majority of street children abuse khat, alcohol, cigarette, ganja, hashish and benzene.They expressed that khat is act as catalyst and the main driving them to use other substance. They reported that once they chew khat there is a strong desire to drink alcohol and to have risky sexual behaviour soon. In response to the question what would be your reasons to abuse these substance and when did you abuse them; majority of participants reported that they abuse substances to hide themselves from the real situation, to bypass their leisure time, to alleviate anxiety and depression.

The participants perceive they are emotionally unstable due to lack of family support, problems of life on the street and lack of vision. Peer pressure was also mentioned as an important factor that pushes youth to abuse substances. For the question of the relation between abuse of substances and risky sexual behaviours all the discussants responded that abusing alcohol impairs their judgment, increases sexual drive and urges them to have unprotected casual sex.

Finally the participants expressed their opinion that their current risky sexual behaviours would be alleviated if the government and other organizations give due attention to their social, economic and

life skill training related to sexual and reproductive behaviours.

DISCUSSION

In this study almost one-third (30.5%) of the study subjects reported that they are already sexually active. This result was lower than previous studies done among street youth in Pakistan 41.9%, Egypt (69%), Ethiopia (55.3%) and Nigeria (79.0%).[12,15,16,18] This variation could be due to age group difference of the study participants as this study included younger age groups of 10-24 years old as compared with older age groups of 15-24 years. Other possible explanation for the difference in this figure might be due to the fact that, youth are not homogeneous group and their experience and health behaviour is directly affected by socio-cultural and economic background where they live. This finding was higher than the previous studies conducted in Ethiopia among non-street youth: in Nazareth high schools (24%), Ethiopian, Behavioural Surveillance Survey in school youth (16.9%), and South Gondar out of school adolescents (23.3%).[10,14,15] This showed that street youth were high risk sexual behaviour when compared with non street youth in this study. The higher prevalence of sexual activity among street youth could be explained by being street youth, which exposes them to early sexual activity since they are idle most of the time, peer pressure, higher prevalence of substance abuse and lack of access to information.

A significant proportion, (62.4%) of sexually active respondents had reported that they had more than one lifetime sexual partners and the mean lifetime number of sexual partners was 3.15. This was higher than from previous studies done on street youth in Egypt 54%, Nigeria 58.5%.[15,18] This higher proportion of having multiple sexual partners among street youth might be explained by unstable life style of street youth, a higher level of exposure to sexual exploitation and sexual practice for the exchange of money due to economical problems.

In this study (40.6%) sexually active males reported having had sexual intercourse with sex workers in the past 12 months. This finding was in agreement with the study done in Pakistan (40%).[12] However, the present finding shows significantly higher than the study finding among street youth in Nigeria which showed (20.6%) males had ever sex with commercial sex workers.[18] A high level of sexual contact with commercial sex workers among street youth suggests these groups of the population are involved in high risk sexual practices. In this study the prevalence of STI among street youth was 24.8%. This finding is slightly higher than a study conducted among homeless youth in USA reported for 21%.[19] Self report on STI sign and symptoms lacks sensitivity and specificity and hence explains these varying results.

In this study about 81% of the participants reported that they knew at least one means of avoiding pregnancy. This finding was comparable with previous studies among non street youth in Ethiopia ranged from 70-90%.[19] However, the proportion of youth who ever used modern contraceptives did not go parallel with their knowledge of methods (57.4% versus 81%), which is consistent with the study done out of school youth in Ethiopia.[14]

Of the sexually active youth, 46.1% reported consistent use of condoms in the last 12month. However, this result was lower than the finding reported among street youth who were consistent use condoms in Canada (72%), Egypt (48%) and Nigeria (65.2%).[9,15,18] This showed that the low utilization rate of consistent condom in this study is an indication of the fact that high risk behaviours are widely practiced by the study group. The proportion of female street youth who reported having unwanted pregnancy was 37.5%, which is comparable with the study in Canada street-based female sex workers with the prevalence of unwanted pregnancy was 37%.[9] But it was higher than the finding conducted in Texas-USA with 20% of homeless young women become pregnant.[21] This finding revealed that the consequences of adolescent sexual behaviour led unwanted pregnancy are significant.

The level of substance abuse was assessed considering as it is predisposing factor to risky sexual behaviours and reported as being practiced among the youth. Of the total street youth, 28.3% reported that they drink alcohol. Chew khat, cigarette smoking, ganja smoking and benzene sniffing were also prevalent.

This finding was comparable with the prevalence of substance abuse (30%) among homeless youth reported in Ethiopia.[16]

This study tried to assess street youths' pattern of health service utilization and barrier and found out that only 15.1% of youth reported that they visited health institutions in the three months prior to the study, which is lower than the prevalence health service utilization among homeless youth study in California (28%) and southern Ethiopia (35.6%).[16,21] Very expensive services, negative attitude of service provider, too much waiting time, inconvenient health institutions, too far health institutions and fear of confidentiality in that order of importance were reported to be the major obstacles that prevent street youth from visiting health institutions. Similar finding was reported in past studies conducted among street youth in California, Pakistan and Ethiopia.[4,10,13,16]

In this study, sex, age, duration on the street, alcohol drinking, cigarette smoking and chat chewing were found to be significantly associated with risky sexual behaviour of street youth. Being female sex was 8 times more likely to have risky sexual behaviour than their counter parts (AOR=8.0 95%CI :(7.4, 38)). Similar finding was reported in a study conducted in New York.[17] Street youth whose age was 20-24 years had 6 times more likely to have risky sexual behaviour when compared with street youths of age 10-14 years,(AOR=6.0 95%CI:(2.2,17)). These who had stayed above one year on the street had 1.8 times more likely to have risky sexual behaviour when compared with street youths stayed below one year ,(AOR=1.8 95%CI:(1.1,3.3)). Those who had alcohol drinking, cigarette smoking and khat chewing 4.6, 3.5 and 3.3 times more likely to have risky sexual behaviour at an early age when compared their counter parts, (AOR=4.6 95%CI:(2.7,7.8)), 3.5 95%CI:(1.3,9)), and 3.3 95%CI:(1.2,9)) respectively. The same finding was reported in a studies conducted in Nigeria and Pakistan.[13,18]

This study finding revealed that a significantly high numbers of street youth have started sexual activity and the majority of them had initiated sexual activity earlier than 18 years. Street youth had multiple sexual partners and at the same time consistent use of condom is very low in this group of population which places them at risk of unintended pregnancy and infection with sexually transmitted diseases including HIV. Risky sexual behaviours were associated with being female, age, and duration on the street, alcohol drinking, cigarette smoking and khat chewing. This finding revealed that health service utilization of streets youth was low.

Young people rely greatly upon interpersonal communication for sexual and reproductive health information as this survey complemented this idea. Thus peer based interventions should be initiated to ensure that street youth have access to accurate information by training them on sexual and reproductive health issues emphasizing that better understanding of factors that influence street youth sexual behaviours that result in risky sexual practices. Further study should be conducted a detailed study to identify socio cultural factors affecting street youth reproductive health behaviour and sexual practices. Addressing the problem of street youth in a holistic manner requires involvement of policy makers to focus on preventive, corrective and rehabilitative measures to alleviate the problem of streetism.

Limitations of the study

Social desirability bias due to highly sensitive questions related to sexuality. Also, risk factor analysis for some of the dependent variables was difficult because of the small sample size.

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REFERENCES

1.Nugent R. Youth in a global world. Population Reference Bureau , May 2006.
2.Federal Democratic Republic of Ethiopia, MOH. Adolescent Reproductive Health Extension Package, 2003, Addis Ababa: 30-42

3.Adolescent Reproductive Health 1997-2004 Contract No.: www.rho.org.
4.Center M-HR. Youth Reproductive Health in Ethiopia. Ethiopia AA, 2002:45-60
5. Population Reference Bureau. The World's Youth 2006 Data Sheet.
6.Health FDRoEMoH. National Adolescent and youth Reproductive health strategy In: MOH E, AA, editor. 2006 - 2015:pp5-6.
7.Kimberly A, TylerA BLD, WCX, Kurt aCJ. Sexual health of homeless youth: prevalence and correlates of sexually transmissible infections. J of Sexual Health 2007;4:57-61 www.publish.csiro.au/journals/sh
8.Sweta Shah GG, Josephine Valencia. Youth on the streets: the importance of social interactions on psychosocial well-being in an African context, May 2005.PP-17.
9.Duff P, Jean Shoveller, Zhang R, Alexson D, Montaner JS, Shannon K. Lifetime Pregnancy and Low Contraceptive Usage Among Sex Workers. BMC ,2011;11(16):1471-2393.
10.Alemayehu S, Mesganaw F, Alemayehu W. Reproductive health needs of out-of-school adolescents: A cross sectional comparative study of rural and urban areas in northwest Ethiopia. Ethiop J Health Dev 2006;20:10-17.
11.Busza Joanna R, Balakireva Olga M, Teltschik Anja V, Bondar Tatiana, Sereda Yuliya V, Meynell C. Street-based adolescents at high risk of HIV in Ukraine. J Epidemiol Community Health. 2011;65:1166-70.
12. Vivian L, Salman H, Tariq Zafar, and Susan G. Street Life and Drug Risk Behaviors Associated with Exchanging Sex in Pakistan. J Adolesc Health. 2009;44:222-8.
13. Ali M, Muynck Ad. Illness incidence and health seeking behaviour among street children in Pakistan-a qualitative study Health & Developmen. 2005;31:525-27.
14. MollaM SI, Kumie A. Sexual violence among female street adolescents in AddisAbaba. Ethiop J of Health Dev 2000;16:119-28.
15.Nada K, el DS. Violence, abuse, alcohol and drug use, and sexual behaviors in street children of Egypt. N. Institutes of Health 2010;24:39-44.
16. Solomon Sorsa1 TK, Lopiso Erosie. Health problems of street children in Ethiopia. EthiopJHealth Dev. 2002;16:129-37.
17.Amy E, Weber, Boivin J-F, Blais L, Haley N, Roy É. Predictors of Initiation among Street Youths Journal of Urban Health 2004;81:584-97.
18.Owoaje ET UO. Sexual risk behaviour of street youths in south west Nigeria. East Afr J Public Health 2009;6:274-9.
19. TylerA D, Whitbeck A, Chen B, Johnson K. Sexual health of homeless youth: prevalence and correlates of sexually transmissible infections. J Sexual Health 2007;4:57-61.
20.WHO. Research on Reproductive health . Biennial report, Geneva ,2000- 2001.
21. De Rosa CD, Montgomery SB, Kipke MD, Iverson E, Ma JL, Unger JB. Service utilization among homeless and runaway youth in Los Angeles, California:rates and reasons. J Adolesc Health 1999;24:449-58 www.publish.csiro.au/journals/sh
22. Agency Cs. Gondar branch annual demographic reports. 2007.

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