ORIGINAL ARTICLE

Health Concern and Challenges Among School Adolescents

Abebe G. Mariam, BSc., MPH[1] and Fekadu Ayele, MD, MPH[1]

ABSTRACT: *This cross-sectional study was conducted during 1997/98 academic year on adolescents (10-19 years) enrolled in 7 Junior and senior high schools in Jimma Zone, Southwest Ethiopia in order to assess health concerns and challenges to determine factors influencing their utilization of the health services. Seven Woredas having both junior and high schools were selected because of feasibility. The source population was all adolescents aged 10-19 years in Junior and senior high schools in the eight schools in the seven Woredas (N=11,048). In each of the eight schools the grades were stratified into three strata, grade 7 & 8, 9 & 10, and 11 & 12. Then, allocation of the target study subjects was made proportional to the size of the classes. The students were then randomly selected from the school rosters according to the stratum and operational definition of age for adolescents. Accordingly, a total of 1768 students aged 10-19 years in grades 7-12 responded to the pre-tested, self- administered questionnaires. Data was analyzed using SPSS/PC+ computer statistical package.*

The result showed that the majority of the male adolescent students (53.6 %) age lies in the age group from 17-19 years. Female adolescent populations were in the age range of 14-16 years (55.1 %). Over three-quarter (78.7%) of the sample population currently live with their parents while the rest live alone and /or with other people. The majority (75.1%) reported ill-health conditions including headache (29.9%), dental problems (20.6%), sexually transmitted diseases (20.4%) and abdominal problems (8.7%). Age and grade of the respondents and occupation of the parents were found to be significantly associated with encountering the health problems reported ($p<0.0001$). Treatment or help was sought by 89.8% of the respondents. Gender, age, living with parents and literacy of fathers were significantly associated with seeking health care ($p<0.001$). From the findings of this study, there are important health problems with their influencing factors. The proportion of treatment seeking behaviors is encouraging. Factors contributing to health seeking behavior should also be an area to strengthen and sustain the current trend. In general identification and early prevention of adolescents behavioral, social and physical health problems should be given high priority; establishment of special adolescent health service in schools and the community setting at large is recommended.

INTRODUCTION

Adolescence is a period characterised by major changes in physical and psychosocial development. It is time when sexual exploration, intimacy and feelings of independence begin to have prime importance despite constraints in the physical and social environment.

As a result, adolescents tend to become

[1]*Community Health Program, Jimma Institute of Health Sciences, P.O. Box 378, Jimma, Ethiopia.*

involved in high-risk, health compromising behaviours and yet feel invincible to the negative consequences of their actions.

Among the high risk behaviours of adolescents are unprotected multi-partner sex, substance use, disregard for the law and rules of the family, the school and society. The consequences of these actions may be sometimes extremely detrimental to the adolescents' future health (1,2). The major health problems include STD, mental illnesses, crime and violence.

According to the Ethiopian population and housing census of 1994, the projected adolescent population is estimated to be 19.3% of the total population (3). Even though they constitute a large segment of the population, there exists very little information on their health issues. According to the American Medical Association, the incidence of illness and death among adolescence is 11% higher now than it was 20 years ago. The most important factors contributing to these problems are teenage pregnancy, substance use/abuse, physical abuse, psychological disorders, violence and trauma (1,4,5).

In many developed countries there is open discussion on sexuality between parents and their adolescent offspring, while it is the reverse in developing countries. Yet the curiosity of adolescence about the world in general and sexuality in particular is intense (6-8) and they would be receptive to discussions about premature sexuality, pregnancy, STD and abortion (9,10). In Africa except in some countries where sex education is included in the school curriculum (11), there are no open discussions on these vital topics between adolescents and experienced and knowledgeable people.

Sexually active adolescents (12,13) can, easily acquire sexually transmitted diseases including HIV/AIDS. Sexual victimisation is often a risk factor for acquiring STD, not only as a direct consequence of victimisation, but also as a result of later behaviours as promiscuity or prostitution, which place the victim at risk (14, 15).

Currently in Ethiopia, there is little data-based information available on adolescents' health to guide planners, decision-makers and service providers to successfully organize and provide adolescent health service. Therefore, The aim of this study was to assess the health concerns and challenges in adolescents and to determine factors influencing health service utilisation.

SUBJECTS AND METHODS

This cross-sectional study was conducted in 7 of the 13 Woredas of Jimma Zone, Southwest Ethiopia. According to the Zonal Planning and Development ,office, there were 27 Junior high schools with 7799 students and 8 high schools with 8939 students in the Zone at the time of the study. Seven Woredas having both junior and high schools were selected because of feasibility to conduct the survey in terms of cost and time.

According to the WHO definition, adolescence is defined as age between 10 to 19 years (16). Therefore, the source population was all adolescents aged 10-19 years in Junior and senior high schools in the eight schools in the seven Woredas (N=11048). In each of the eight schools the grades were stratified into three strata, grade 7 & 8, 9 & 10, and 11 & 12. Then, allocation of the target study subjects was made proportional to the size of the classes. The students were then randomly selected from the school rosters according to the stratum and operational definition of age for adolescents. Accordingly, a total of 1768 students 10-19 years of age in grade 7-12 responded to the questionnaires administered.

A Pre-tested anonymous self-administered

questionnaire was used to collect the data. The variables collected included socio-demographic characteristics and adolescent risk behaviours, their major health problems, health services utilisation and their perceived health needs and alternative options. The questionnaire was first prepared in English and then translated into the Amharic language.

Seven persons were oriented and assigned one to each Woreda to administer and collect the data. Supervisors checked the accuracy, completeness and the consistency of information obtained.

Finally, the collected data was coded, entered and analysed with the SPSS/PC + computer statistical package. Then, frequencies, rates and other applicable tests of significance were applied.

RESULTS

Socio-Demographic Characteristics of the Study Population: A total sample of 1840 adolescent students were expected to be included in this study however, 1768 students completed the questionnaires (96.1%). Male students' ages lie in the age group of 17-19 years (53.6%) and were in the grade stratum of nine and ten (22.4 %). The female students' ages were in the range of 14-16 years (55.1%) and were in the grade strata of nine and ten (20.5%).

Over three-quarters of the students (78.7%) live with their parents, while the rest (21.3%) live alone and /or with other people. The majority of the mothers were illiterate (56.3%), with no monthly income (75%) and 63.3% were housewives. The fathers were more literate (61.4%) and farmers (38.1%) by occupation.

Health Seeking Behaviour: Majority of the sample adolescent student population, 75.1% (n=1327) reported having ill-health conditions, among others, as headache (29.9%), dental problems (20.6%), sexually transmitted diseases (20.4%) and abdominal problems (8.7%) as the most frequently encountered health problems over the last one year (Table 1). When the frequently reported health problems were cross-tabulated by the socio-demographic characteristics of the subjects, age (14-16), and grade (9-10), and the occupation of the parents were found to be significantly associated with the health problems reported ($p<0.0001$).

As shown in table 2, medical care seeking behavior of the subjects showed that grade 9-10, living with parents and having literate fathers who are government workers were more likely to seek medical care whenever they had health problems, ($p<0.001$).

Among the respondents, the prevalence of illnesses was 62.2% and 56.3% sought medical care for their illnesses during the past one-year. The rest, 43.7% did not seek any medical care. The reasons given for not seeking medical care were mainly: fear to visit medical care facilities, long waiting time at health facilities and they were considered by both the parents and peers as healthy looking. Thus, they thought the illnesses were simple and no treatment was needed.

Respondents were asked about their attitudes towards seeking any medical help whenever they become ill and where they prefer to go for such help. The majority of them, 1587 (89.8%) reported that they seek treatment/help from government health institution (66.1%), private clinics (21.7%),

Table 1. Common health & health-related problems reported by the adolescent students population, Jimma Zone, Southwest Ethiopia, 1998.

Common health problems	Frequency		
	Male	Female	Total
	No (%)	No (%)	No (%)
Headache	195 (30.3)	164 (29.4)	359 (29.9)
Dental problem	137 (21.3)	110 (19.7)	247 (20.6)
STD	138 (21.4)	107 (19.2)	245 (20.4)
Abdominal problem	50 (7.8)	55 (9.9)	105 (8.7)
Depression	50 (7.8)	36 (6.6)	86 (7.2)
Skin problem	36 (5.6)	36 (6.6)	72 (6.0)
Unwanted sexual activity	17 (2.6)	29 (5.2)	46 (3.8)
Substance use	21 (3.3)	20 (3.6)	41 (3.4)
	Total 644 (100)	557 (100)	1201 (100)

Table 2. Medical care seeking behavior by socio-demographic characteristics of parents and of adolescent students population, Jimma Zone, Southwest Ethiopia, 1998.

	Seek medical care				
	Yes	NO			
Characteristics	No (%)	No (%)	Total	χ^2	P-value
Age					
11-13	116 (7.3)	21 (11.6)	137 (7.7)		
14-16	770 (48.5)	72 (39.8)	842 (47.6)	7.36	NS
17-19	701 (44.2)	88 (48.6)	789 (44.6)		
Total	1587 (100.0)	181 (100.0)	768 (100.0)		
Grade					
7-8	603 (38.0)	92 (50.8)	695 (39.3)		
9-10	699 (44.0)	59 (32.6)	758 (42.9)	45.15	0.00
11-12	285 (18.0)	30 (16.6)	315 (17.8)		
Total	1587 (100)	181 (100.0)	1768 (100.0)		
Sex					
Male	806 (50.8)	97 (53.6)	903 (57.2)		
Female	781 (49.2)	84 (46.4)	865 (48.9)	0.511	NS
Total	1587 (100)	181 (100)	1768 (100)		
Residence					
Alone	211 (13.3)	33 (18.2)	244 (13.8)		
With parents	1265 (79.7	127 (70.2)	1392 (78.7	9.37	0.009
With others	111 (69.9)	21 (11.6)	132 (7.5)		
Total	1587 (100)	181 (100)	1768 (100)		
Literacy: Mother					
Illiterate	720 (45.4)	53 (29.3)	773 (43.7)		
Literate	867 (54.6)	128 (70.7)	995 (56.3)	17.09	0.000
Total	1587 (100)	181 (100)	1768 (100)		
Literacy: Father					
Illiterate	586 (36.9)	96 (53.0)	682 (38.6)		
Literate	1001 (63.1	85 (47.0)	1086 (61.4)	17.80	0.000
Total	1587 (100)	181 (100)	1768 (100)		

NS = Not significant

Table 3. Place of preference to seek medical care, socio-demographic characteristics of parents and adolescent students population, Jimma zone, Southwest Ethiopia, 1998.

Characteristics	Preference of medical care Institution					
	None	Private	Gov't	Traditional		
	No (%)	No (%)	No (%)	No (%)	χ^2	P-value
Age						
11-13	21 (11.6)	22 (5.7)	91 (7.8)	3 (8.6)		
14-16	72 (39.8)	178 (46.5)	575 (49.2)	17(48.6)	13.08	NS
17-19	88 (48.6)	183 (47.8)	503 (43.0)	15(42.9)		
Total	181(100)	383 (100)	1169(100)	35(100)		
Grade						
7-8	92 (50.8)	125 (32.6)	464(39.7)	14(40.0)		
9-10	59 (32.6)	181 (47.3)	502(42.7)	16(45.7)	66.57	0.000
11-12	30 (16.6)	77 (20.1)	203(17.4)	5(14.3)		
Total	181(100)	383 (100)	1169(100)	35(100)		
Sex						
Male	97(53.6)	207(54.0)	576(49.3)	23(65.7)		
Female	84(46.4)	176(46.0)	593(50.7)	12(34.3)	8.48	NS
Total	181(100)	383(100)	1169(100)	35(100)		
Residence						
Alone	33(18.2)	54(14.1)	154(13.2)	4(13.8)		
With parents	127(70.2	303(79.1)	935(80.0)	16(55.2)	14.47	NS
With others	21(11.6)	26(6.8)	80(6.8)	9(31.0)		
Total	181(100)	383(100)	1169(100)	29(100)		
Literacy:Mother						
Illiterate	128(70.7	221(57.7)	625(53.3)	21(60.0)		
Literate	53(29.3)	162(42.3)	544(46.5)	14(40.0)	21.51	0.0003
Total	181(100)	383(100)	1169(100)	35(100)		
Literacy :Father						
Illiterate	96(53.0)	152(39.7)	418(35.8)	16(45.7)		
Literate	85(47.0)	231(60.3)	751(64.2)	19(54.3)	25.71	0.000
Total	181(100)	383(100)	1169(100)	35(100)		

NS = Not significant; Gov't = Government

Table 4. Common social problems reported by adolescent students, Jimma Zone, Southwest Ethiopia, 1998.

Social problems	Male No (%)	Female No (%)	Total No (%)
Family violence	96 (18.9)	92 (21.5)	188 (20.2)
Unemployment	187 (36.7)	141 (33.3)	328 (35.1)
Bad habits (smoking, khat chewing)	46 (9.0)	37 (8.7)	83 (8.9)
Sexuality related problems	21 (4.1)	22 (5.2)	43 (4.6)
Health services related problems	16 (3.1)	5 (1.2)	21 (2.3)
Others	143 (28.1)	127 (29.9)	270 (28.9)
Total	509 (100.0)	424 (100.0)	933 (100.0)

and/or pharmacies and traditional practitioners (2%) respectively. Utilisation of government health care facilities showed significant differences when grade of the students, literacy status and occupation of the parents were taken into account (Table 3).

Common social problems reported by the subjects are depicted in table 4. Out of the total respondents, 933 (52.8%) reported that they had some social problems. Unemployment of parents (35.1%) and family violence (20.2) was more frequently reported social problems among both sexes.

DISCUSSION

The normal physical growth and maturation of adolescents may adversely be affected by inadequate diet, untimely or inappropriate physical stresses on the growing body, or pregnancy before a young woman is fully mature. Inadequate information on which to base decisions about behaviour, inappropriate choice of behaviour and lack of support to make the appropriate choice possible are also likely to result in risks to the health of adolescent.

The findings of this study showed that headache, dental problem and STD were the most frequently reported illnesses in the past 1 year. The age, grade level and occupation of the parents affect these ill-health conditions. It seems that early adolescence and enrolment into secondary school are associated with stress situations and sexual activity, which are likely to expose the target group to STD and other stress conditions. Adolescent people are often very vulnerable to the kinds of stress that promote mental instability. Not only must they meet the challenges of growing up, they must also deal with the conditions of modern society, which are increasingly characterised by a weakened family structure, rapid urbanisation, competition for education and employment and exposure to alcohol and other drugs. Adolescence is a time of emotional liability in which depression and anxiety can occur frequently. Previous studies in different parts of Ethiopia and elsewhere supports this finding (17-19).

Awareness and attitude to seek medical care among the study subjects (89.8%) is encouraging, the highest proportion being from government health facilities (66.1%). This could be explained by the fact that these institutions give free service or they may be the only available facility for the studied subjects. The role of the private health care facilities in provision of health

care options to the subjects seems not uncommon. A study in USA reported those disadvantaged adolescents to be more likely to rely on government hospitals whereas over 65% received health care from the private practitioner (8). In this study, the likelihood of getting health care services from government health facilities could be due to the provision of the services for holders of poverty certificates provided by the immediate Kebele administration.

Adolescent in the age group 14-16 years in grades 9-10 living with their parents whose fathers are literate and government workers, were more likely to seek medical care. This could probably be attributed to the influence of parental awareness and control over the health care of younger adolescents as well as being able to afford medical care. The family is the fundamental unit of all societies, which provides basic needs and gives moral support to the adolescents. The family also serves as a role model in preparing these youths for adulthood. Along with this, there is a relatively high degree of control over the adolescent's behaviour (6,7,20).

The health service needs of adolescents are met in several ways; through general health services, health services specially designed for adolescents and younger age groups, and through general community education and social services (21). In this study, although over 50% of the subjects sought medical care for their illnesses in the past one year, the rest 43.7% who did not seek medical care is disturbing. This is a relatively high figure which calls upon the attention of both parents and the health sector to put an effort to change the behaviour of the adolescent to seek medical care interventions whenever they become ill. One of the intervention areas, from the reasons given for not seeking care during illnesses, is to organise special adolescent health care programs that could be school based, in government and/or private health institutions. This special provision for the adolescents could range from the simple setting aside of certain hours for consultations, to a multi-disciplinary team approach dealing with the full range of their health problems (7, 8, 21).

In real life, many adolescents lack even the most basic information to enable them to find help. Health services must strive to promote health by providing reliable information directly to adolescents with whom they are in contact and indirectly through adults who deal with this age group. They should identify those with health risks at an early stage, and provide effective treatment for injury or diseases. In most countries, health services are rarely attuned to the special needs of adolescents who are perceived as being healthy.

Exposure to unwanted pregnancy, unsafe abortion, HIV/AIDS/STD, dropping out of school due to pregnancy, and high rate of smoking habits are risk factors identified by the few studies available (1-3).

Adolescents have health problems that arise from behaviour in environments beset with risks. They also have particular sensitivities and health workers must have special training if the available services are to be used to their fullest extent.

As stipulated in the MOH manual on Maternal and Child Health Care, the objectives of adolescent health activities are to decrease and prevent problems such as unwanted pregnancy, abortion, STD and early marriage (22). This can be achieved through family life education of young people in order to increase their knowledge and integrity, and enable them to better withstand social pressures with confidence. They need knowledge and ready access to appropriate reproductive health services.

Identification and early prevention of adolescents behavioral, social and physical health problems should be given a high priority. Thus, the result of this study is

believed to have a significant implication to develop or implement special adolescent health services in the study area in particular and in the country at large. Therefore, all health workers and concerned authorities should support introduction of family life education in schools and provide reading materials on STD, AIDS, early marriage or unwanted pregnancies.

ACKNOWLEDGEMENTS

This study was financially supported by the Research and Publications Office of Jimma Institute of Health Sciences. We express our thanks to all school principals, students, data collectors and supervisors who actively participated in this study. We are grateful to Ato Fasil Tessema who helped us in the data analysis. Ato Girma Asengo and Ato Tamene Belachew deserves special thanks for the data entry and clean up.

REFERENCES

1. Axemo P. Maternal and Child Health Care, Module three: High risk women & infants, Edn. 2. Addis Ababa: Family Health Department, Ministry of Health, 1991.
2. Olson L. Study examines girls reason fo: quitting school. Educational Weekly 1987; 6: 25.
3. Central Statistics Authority. Population projection of Ethiopia: Total and sectorial (1985-2035), population studies series No. 2, Addis Ababa, Ethiopia, 1988.
4. Transitional Government of Ethiopia. National Health Policy of Ethiopia. Addis Ababa, Ethiopia, September 1993.
5. Transitional Government of Ethiopia. Population Policy. Addis Ababa, April 1993.
6. Lepan RF, Ashley L. Health problems of adolescents and young adults, In: Hobson, theory and practice of Public Health 4th edn. London Oxford Univ. Press: 1975; 357-358.
7. Howard M, McCabe JB. Helping teenagers postpone sexual involvement. Family Planning Perspectives. 1990; 22: 21-26.
8. American Medical Association. In the public interest: A call to action J. Lowa Med. Soc. 1987; 77: 422.
9. Tietze C. Induced abortion, In: Population Council, 3rd Ed. New York, 1979.
10. World Health Organisation. Pregnancy and abortion in adolescents. WHO Tech. Report series, No 583, WHO, Geneva, 1975.
11. World Health Organisatio Health needs of adolescents. Tech. Report series. No. 609, Geneva, 1977.
12. United Nations. Adolescents' reproductive behaviour: Evidence from Developed Countries. Vol. 1. UN, New York, 1988.
13. Senderowitz J, Pazman J. Adolescent fertility: world wide concern. Population Bull. No. 2. Vol. 40 Population reference Bureau Ind. 1985.
14. Brooks-Gunn J. Antecedents to and consequences of variations in girls maturational timing. J. Adol. Health Care 1988; 9 : 365-373.
15. Mashalaba NN. Commentary on the causes and consequences of unwanted pregnancy from an African perspective; Int. J. Gynae. & Obs. 1989; (Suppl. 3): 15-19.
16. World Health Organization. The Health of Young People: A Challenge and Promise, P 1, Geneva,1993
17. Mesfin A, Francis EA. Mental Illnesses. In: Zein Ahmed Zein and H. Kloos (eds), The Ecology of Health and Disease in Ethiopia. PP.497 - 506.

MOH, Addis Ababa, 1988.

18. Samuel, M. The Prevalence and risk factors of psychopathology in Ethiopian children. [M.A. Thesis], Queen's University, Kingston, Ontario, 1991.
19. Adele D, Hofmann. Principles of adolescent health care. In: Helen M, Wallace EM, Gold AC, Oglesby (eds), Maternal and Child Health Practices, Problems, resources and method of Delivery. Pp. 652-674. John Wiley and Sons, Inc., USA, 1987.
20. Kilimwiko L. Young motherhood a cause for concern. People 1991; 18(4): 38-39.
21. Irwin CE, Millstein SG. Biopsychosocial correlates of risk-taking behaviours during adolescence: Can the physician intervene? J. Adol. Health Care 1986; (Suppl. 7): 825-965.
22. Ministry of Health. Manual on MCH Care. Addis Ababa, Ethiopia. 3rd ed., 1995.