

Knowledge, Attitude and Practice on Contraceptive Use among Secondary School Students in Dar es Salaam, Tanzania**S. G. MUNG'ONG'O*, V. MUGOYELA AND B. KIMARO***School of Pharmacy, Muhimbili University College of Health Sciences, P.O. BOX 65013, Dar es Salaam, Tanzania.*

The rapid increase in the proportion of sexually active adolescents is exposing large numbers of youths to the risk of unwanted pregnancies and sexually transmitted diseases including HIV/AIDS. Promotion and strengthening of reproductive health education and services, especially among adolescents requires access to current baseline data on knowledge, attitude and practice of contraception among adolescents, including secondary school students. This data is very scanty for Tanzania. The aim of this work was to determine the knowledge, attitude and practice of contraceptive use among secondary school students in the Dar es Salaam region of Tanzania. Ilala district of Dar es salaam has a high concentration of secondary schools enrolling a cosmopolitan population of students hailing from most regions of the country. These come from various social-economic backgrounds effectively representing the general Tanzanian population. The study was designed as a cross-sectional descriptive study. Secondary school students aged 14 to 19 years were interviewed on their knowledge, attitude and practice on contraceptive use using a structured questionnaire. A total of 200 students (126 females, 74 males) participated in the study. Knowledge on contraceptive use was found to be good to average (75%). Knowledge and prevalence of contraceptive use was found to increase with age, current use and positive attitude. Female students had better knowledge on contraception than male students. Good knowledge on contraception did not translate into increased use, the prevalence of use being only 34% as compared to 75% of students with average to good knowledge. More students reported using the male condom for contraception. Most students (69.5%) mentioned pharmacies and drug stores as their main source of contraceptives. These findings underscore the need for early education on human sexuality and the benefits of family planning. Health care providers, including pharmacists, must be trained to be able to provide adequate basic contraceptive services to adolescents and the general public. There is need to improve access to contraceptive services by adolescents.

Key words: Contraceptives knowledge, attitude to contraception, practice of contraception, secondary school students

INTRODUCTION

The proportion of sexually active adolescents including secondary school students has been on the increase worldwide including Tanzania. This is exposing large numbers of youths to the risk of unwanted pregnancies and sexually transmitted diseases (STDs) including HIV/AIDS [1-4]. There is thus a need to promote and strengthen reproductive health

education and services in Tanzania, especially among adolescents. To be able to achieve this, some current baseline data on knowledge, attitude and the practice (KAP) of contraception among adolescents, including secondary school students, is needed. This data is very scanty for Tanzania and the aim of this work was to determine the current knowledge, attitude and practice on contraceptive use among secondary

* Author to whom correspondence may be addressed

school students in Ilala district, Dar es Salaam, Tanzania.

Several reports on studies on contraception in women of child-bearing age in Tanzania have been published [5-11]; but very little is known about the current knowledge, attitude and practice on contraception among adolescents, including secondary school students. In 1992, Kapiga *et al.* reported that while 60.9% of the secondary school pupils in Bagamoyo district, Tanzania were sexually active, contraceptive knowledge and use was very low especially among females, with only 15.4% of the pupils reporting to have ever used a contraceptive method [12]. A similar study by Lugoe *et al.* [13] among secondary school students in Arusha, Tanzania found that only 26.8 % of the sexually active students reported having used a condom. Mbunda, in the year 2000, found that the overall level of contraceptive use was found to be very low (11.8 %) among sexually active teenagers (15-19 years) [14].

Dar es salaam city, Tanzania was selected for the present study because of it is a large cosmopolitan city with all the social – economic stratification for exposing adolescents to higher risk of early sexual exposure and hence the need for intervention. The aim of this study was to assess the KAP on contraceptive use among randomly selected public secondary school students in Ilala district of Dar es salaam region. Ilala district has the highest number of public secondary schools concentrated within a small area and enrolling students from all parts of the country with various social –economic backgrounds. This was expected to afford a reasonably representative sample for data collection. The information obtained from this study is expected to add to the available baseline data which could assist in the planning of interventions through health education programs targeted on secondary school students and other adolescents.

MATERIALS AND METHODS

Study design

This was designed as a cross - sectional descriptive study. It was carried out between December 2002 and April 2003. It aimed at determining contraceptive prevalence of use, knowledge and attitude among secondary school students in Ilala district, Dar es Salaam, Tanzania.

Target population

Students from four randomly selected secondary schools, namely Azania, Jangwani, Zanaki and Benjamin Mkapa in Ilala district were selected for the study. The students selected were aged 14 -19 years.

Sample size

The sample of 200 students was calculated according to WHO manuals for estimating sample sizes in prevalence studies [16, 17].

Sampling procedure

Participants for the study were selected by using a multi-stage random selection approach. In the first stage, four secondary schools were selected randomly from a list of all secondary schools in Ilala district. The second stage was a random selection of classes from school. All members of the selected class were enrolled in the study. The students who were present during the day and time of data collection were involved in the study.

Data collection

A pre-tested, standardized, guided questionnaire written in the Kiswahili language was used for data collection. Students were given adequate information on purpose and how to fill the questionnaire; assuring privacy and confidentiality were assured. Ethical clearance for the study was sought from education authorities responsible for secondary schools in Dar es salaam region.

Outcome measure

In this study contraceptive use was treated as the dependent variable while age, sex, level of knowledge on contraceptives and attitudes towards contraceptive use, were treated as independent variables. All students who mentioned 7 to 9 methods of contraception were regarded as having good knowledge while those who mentioned 4 to 6 methods and three or less methods were regarded as having average and poor knowledge respectively. On attitude, those students who approved the use of contraceptives were considered to have a positive attitude towards contraception while those who disapproved the use were considered to have negative attitudes.

Data analysis

Data analysis was done using the Epi Info 6 program (Centers for Disease Control and Prevention Atlanta, Georgia, USA). The Chi-Square test was used to compare proportions. A p-value of ≤ 0.05 was considered statistically significant.

RESULTS AND DISCUSSION

A total of 200 students participated in the study between December 2002 and April 2003. The distribution of the sampled students by age and sex is shown in Table 1.

Table 1: Distribution of students by sex and age

SEX	AGE (YEARS)			TOTAL
	<15	15 – 16	>16	
MALE	2 (1%)	9 (4.5%)	63 (31.5%)	74 (37%)
FEMALE	12 (6%)	40 (20%)	74 (37%)	126 (63%)
TOTAL	14 (7%)	49 (24.5%)	137 (68.5%)	200 (100%)

Table 2: Distribution of student's level of knowledge about methods of contraception by age

AGE	KNOWLEDGE			TOTAL
	Good	Average	Poor	
<15	7 (8.75%)	5 (7.14%)	36 (72%)	48 (24%)
15-16	30 (37.5%)	33 (47.14%)	3 (6%)	66 (33%)
>16	43 (53.75%)	32 (45.7%)	11 (22%)	86 (43%)
TOTAL	80 (100%)	70 (100%)	50 (100%)	200 (100%)

Results for knowledge, attitude and prevalence of contraceptive use and their variations with age, sex among secondary school pupils in Ilala, District, Dar es Salaam are shown in Tables 2-5.

Results of this study show that about 73% of respondents had good to average knowledge on contraceptives. There was a strong association between knowledge about contraceptives and age ($p < 0.01$). Of the 80 students with good knowledge on contraception, a large proportion of them (53.75%) were aged above 16 years while a large proportion (72%) of those with poor knowledge were aged below 15 years as shown in Table 2.

Most students were able to mention a least one advantage of family planning with only 8% of respondents not knowing any advantages of family planning. Reported advantages of contraception did not differ much between males and females. Older adolescents were more knowledgeable about advantages of contraception and were therefore more likely to practice it. These results were supported by the finding that there was an association between respondents' ages and practice on contraception ($p < 0.05$).

Sixty eight (34%) of all respondents reported actually using modern contraceptives as shown in Table 3.

Table 3: Distribution of students' contraceptive use by age

AGE (YEARS)	USER	NON-USER	TOTAL
<15	4 (2%)	10 (5%)	14 (7%)
15-16	9 (4.5%)	40 (20%)	49 (24.5%)
>16	55 (27.5%)	82 (41%)	137 (68.5%)
TOTAL	68 (34%)	132 (66%)	200 (100%)

Table 4: Distribution of student's level of knowledge on methods of contraception by sex

SEX	KNOWLEDGE			TOTAL
	GOOD	AVERAGE	POOR	
MALE	26 (13%)	32 (16%)	37 (18.5%)	95 (47.5%)
FEMALE	54 (27%)	38 (19%)	13 (6.5%)	105 (52.5%)
TOTAL	80 (40%)	70 (35%)	50 (25%)	200 (100%)

Table 5: Association between level of knowledge of contraceptive methods and contraceptive use

Contraceptive use/non-use	Knowledge of contraceptive methods			Total
	Good	Average	Poor	
User	49 (61.3%)	12 (17%)	7 (14%)	68 (34%)
Non-user	31 (38.8%)	53 (81.5%)	48 (87.3%)	132 (66%)
Total	80 (100%)	65 (100%)	55 (100%)	200 (100%)

Of these, 20% were females and 14% males. Fifty five out of 68 students (81%) who practiced contraception were aged more than 16 years. Only 6% of contraceptive users were aged less than 15 years old. This finding corroborates well with results of a study conducted in the United States of America (USA) which showed that older teenagers above 16 years of age are more likely to practice contraception [23]. However, the findings of this study emphasize the need to specifically target younger adolescents for reproductive health education.

More female students (46%) were found to have good to average knowledge compared to male students (29%) (Table 4).

The difference in level of knowledge on contraception between males and females may be related to their differences in the perception of the consequences of pregnancy in females and the fact that females reach puberty at an earlier age than males. In a 1997 study in the

USA, women demonstrated significantly greater knowledge than males and contraceptive knowledge was highly correlated with self reported use of contraceptives (18). In another study done in Southern Nigeria, it was found that while 61.6% of secondary school students were sexually active, only 13.8% were aware of any method of contraception and only 12.6% actually used some form of contraception [19]. Safety was the commonest criteria mentioned for the choice of methods for use in the future (52%). This was followed by effectiveness (28.5%), reversibility (28%) and ease of use (26%).

The results show a disparity between contraceptive knowledge (about 73% respondents with good to average knowledge) and actual use of modern contraceptives (prevalence of use 34%) as shown in table 5. The disparity between good knowledge and low levels of contraceptive use have also been reported from studies conducted in Uganda, Bangladesh [21] and Malawi [22], Burkina

Faso, Ghana, Malawi and Uganda in 2004 [24]. The main reasons cited for non-use are fear of side effects and not being married. Thus adolescents including students need to be counseled on side effects of each contraceptive method available and barriers to access to contraception by adolescents who are sexually active need to be removed.

The proportion of contraceptive users found in this study (34%) is higher than that of teenagers (15 -19 years) reported by the Tanzania Bureau of Statistics in 1999 which was 11.8 percent [10]. The higher level of prevalence of practice of contraception may be explained by the recent high level of information dissemination on HIV/AIDS and condom use as a protection against HIV/AIDS and unwanted pregnancies. However, this figure is still low compared to other countries for example the USA where in 1995, 81% of adolescent women reported using some method of contraception [15].

The results of this study show that the male condom is the most preferred method of contraception among respondents (57.4%). A study done among secondary school students in Arusha, Tanzania by Lugoe *et al.* in 1996 showed a much lower level of condom use (21.5%) [13]. The higher level of condom use (57.4%) in this study can be a result of the current increase in access to health information by teenagers concerning pregnancy and STD's, easy availability and the dual protection offered by the male condom.

There was a strong association between students' attitude towards contraception and actual use ($p < 0.05$). Out of the 68 students who used contraceptives, 62 (91%) had a positive attitude towards contraception. However, the study shows that a positive attitude alone did not lead to a higher prevalence of contraceptive use. While 149 (74.5 %) of the respondents approved the use of contraceptives, only 62 (41.6 %) actually practiced contraception. This result (74.5 % positive attitude) is higher than previously reported by Mbunda [14].

Most students (69.5%) using contraceptives mentioned drug stores or pharmacies as their source of contraceptives. This is probably due to the fact that these outlets are more readily accessible to clients and they tend to be more

user friendly than other outlets including hospitals, family planning clinics and dispensaries [24, 25]. Furthermore, in this study condoms were mentioned as the most commonly used contraceptives and these are readily available in drug stores and pharmacies. This finding is similar to the one reported in 2003 by the African Youth Alliance (AYA) [26]. There is therefore, a need to strengthen the training of pharmaceutical and related health care professionals on contraception in order for them to provide quality supply and counseling services on choice and proper use of contraceptives. These professionals should be able to provide unbiased information to adolescents on the risks of becoming sexually active and provide or refer sexually active adolescents for reproductive health care.

CONCLUSION

The majority of secondary school students in this study were found to have good to average knowledge on contraception, but this did not translate into an increased level of use. The proportion of secondary school students using contraceptives was still very low making them vulnerable to unwanted pregnancies and STDs. Early age basic knowledge and access to contraceptive services needs to be enhanced. Teenagers in this study preferred pharmacies and other drug outlets for contraceptive services. There is a need to strengthen the training of pharmacists and other health care professionals to enable them to provide quality counseling services on choice and proper use of contraceptives

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