THE KNOWLEDGE, ATTITUDES AND PRACTICES OF SOLDIERS IN A GENDARMERIE COMMAND HEADQUARTERS ABOUT FAMILY PLANNING AND VENEREAL DISEASES

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Abstract. The objective of this study was to determine the knowledge, attitudes and practices of young male soldiers about family planning. This was a cross-sectional study conducted at the Gendarmerie Command Headquarters, Elazig City, eastern Turkey, carried out on 14 April 2004. One hundred ninety-one of 209 soldiers who were present at the Gendarmerie Command Headquarters were included in the study. A questionnaire, developed by the researchers evaluating the goals of the study, was filled out by the subjects prior to the Family Planning Seminar given to the soldiers. Data were assessed using SPSS and the chi-square test was used for statistical analysis. Defining family planning correctly, being familiar with planning methods and a knowledge of sexually transmitted diseases (STD) and their prevention was found to be at low levels among soldiers. A knowledge of family planning, birth control methods, identification and prevention of STD was higher with higher levels of education. The most familiar family planning methods were condom and oral contraceptive use. Soldiers constitute one of the most significant target groups for education programs.

Keywords: family planning, gendarmerie, venereal diseases, contraception

INTRODUCTION

At the International Conference on Population held in Mexico City in 1984 family planning was determined by the international delegates as a "basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health" (The Turkish Republic Ministry of Health, 1997).

Reproductive health not only includes the abssence of disease and disability of the reproductive system and its functions, but also includes a state of physical, mental and social well-being. This definition includes the ability of having a satisfactory life, to reproduce and to have the freedom to decide reproduction frequency. This freedom includes the right to receive information regarding reliable, effective, and inexpensive methods to regulate reproductivity in women and men and access to pregnancy and birth health care related services. Reproductive health care services should not only

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provide counseling about reproduction and STD but should also include sexual health, which enriches life and individual relations (WHO, 1994, 1995).

The most significant progress regarding reproductive health in the world has been in contraceptive use prevalence. Nine percent of married women of reproductive age or their husbands were using a contraceptive method in developing countries between 1965 and 1970, but this rate increased to 50% between 1985 and 1990. This increase in contraceptive use resulted in a reduction in fertility (Fathalla, 1992, 1994).

Programs organized in Mexico, Hong Kong, Nigeria, the Philippines, UK and USA increase participation of men in family planning practices. Brochures and posters, videos and mass media have been used extensively. Campaigns have been organized on special days for this purpose. There was a significant increase in the number of vasectomies obtained as a consequence of a mass media campaign to promote vasectomy in Brazil (Anonymous, 1986; Rogou, 1990).

The role of men in family planning programs has been recognized as important but has generally been neglected. Men are the decision makers in most communities. Women have an economic dependence on men which obligates them to accept men's decisions. This is valid in family planning as well (Anonymous, 1986).

Contribution of males to family planning services is unsatisfactory in Turkey. Ninety-eight percent of married males are aware of only one family planning method and only 63% use that method. Withdrawal constitutes 26.4%, condom 10.8%, the rhythm method 1.1% and vasectomy 0.1% (Akin *et al*, 2006).

One of the most important causes of morbidity and mortality is infectious diseases; it is the leading cause of death in the world. Globally 16.4 million people die yearly from infectious diseases (Plant and Rushworth, 1997).

Studies regarding HIV and AIDS have been published in more than 180 countries (WHO, 1992). The first AIDS case diagnosed in Turkey was in 1986. Since then it has been an important health problem for our country. AIDS research has resulted in 509 publications in Turkey since 1996 (Saltik, 1996).

Community education, surveillance, epidemiological investigations, control programs and follow-up of AIDS patient contacts, vaccinations and screening tests have played an important role in prevention and control of STD (Rutherford, 1998). The first step is community education.

Soldiers are in a sexually active age group and most are single. This group is considered at high risk for STD (Cetinturk and Terzioglu, 2002).

Most studies conducted in Turkey have involved only females. There is little information about the attitudes, knowledge and behaviors of single males toward family planning (FD) and STD. This survey was carried out to determine the level of knowledge, attitudes and practices regarding FP and STD among soldiers serving at the Gendarmerie Command Headquarters of Elazig Province.

MATERIALS AND METHODS

The study was performed on April 14, 2004 at the Gendarmerie Command Headquarters of Elazig Province.

The Turkish law states every male citizen of the Turkish Republic must give

compulsory military service after they are 20 years old for a period of 15 months. Besides military personnel, whose sole profession is being a soldier, the Turkish Army consists of people of other occupations who are also performing mandatory military service. During military service, each soldier is randomly assigned a commandership in the country. Elazig Gendarmerie Commandership is composed of 209 soldiers of different backgrounds randomly selected for their position. The results obtained from this study should reflect the situation nation-wide.

All the soldiers of the Province's Commandership were eligible for this study; 191 of 209 soldier completes the study. The soldiers who did not complete the study were either ill or off duty.

Permission was obtained from the regional gendarmerie headquarters to carry out the study.

A questionnaire to measure the knowledge, attitudes and practices of the soldiers regarding FP and STD was given to the soldiers prior to a Family Planning Seminar organized for those soldiers.

The data were evaluated by SPSS and the chi-square test was used for statistical analysis.

RESULTS

The average age of the soldiers in the study was 24.74±3.15 years (range 20-33). Twenty-five point one percent of the soldiers were college or university graduates, 39.8% were high school graduates, 16.8% were middle school graduates. Seventy-two point three percent of the soldiers were single. Twenty-seven point two percent were laborers, 20.4% were low-level self-employed workers (such as cooks, welders, drivers, hairdressers), 7.3% were high-level self-employed workers (such as engineers, attorneys, administrators) and 13.6% were unemployed. The average age among married soldiers was 22.55±2.93 years (range 15-27). The socio-demographic characteristics of the study group are shown in Table 1.

Table 1
The socio-demographic distribution of the soldiers included in the survey.

Properties	Number	%
Age (*N*=191)		
≤25	119	62.3
≥26	72	37.7
Education status (*N*=191)		
Illiterate	2	1.0
Literate	3	1.6
Primary school graduate	30	15.7
Middle school graduate	32	16.8
High school graduate	76	39.8
University graduate	48	25.1
Marital status (*N*=191)		
Married	53	27.7
Single	138	72.3
Family type (*N*=191)		
Nuclear family	157	82.2
Extended family	34	17.8

Table 2
Contraception methods used by the soldiers in the survey.

Methods (*N*=77)	Number	%
Condoms	58	30.4
Tubal ligation	2	1.0
Intrauterine device (IUD)	7	3.7
Withdrawal method	7	3.7
Contraception pills	3	1.6

The percent of soldiers defining family planning correctly was 52.4%. Those with an appropriate knowledge of condom use was 67.5%, contraceptive pill use was 42.9%, contraceptive spiral was

Table 3
Knowledge of soldiers about STP.

VD	Aware		Unaware	
	Number	%	Number	%
AIDS	183	95.8	8	4.2
Hepatitis B	130	68.1	61	31.9
Gonorrhea	136	71.2	55	28.8
Syphilis	97	50.8	94	49.2
Chlamydia	6	3.1	185	96.9
Candidiasis	4	2.1	187	97.9
Trichomoniasis	7	3.7	184	96.3
Chancroid	15	7.9	176	92.1
Granuloma inguinale	1	0.5	190	99.5
Genital herpes	21	11.0	170	89.0
Lymphogranuloma	3	1.6	188	98.4

Table 4
Knowledge of soldiers about complications of STD.

Complication	Number	%
Infertility in women	14	7.3
Infertility in men	4	2.1
Infertility in both women and men	80	41.9
Death	122	63.9
Infection of the newborn	103	53.9

40.8% and withdrawal was 25.1%. Forty point three percent of soldiers (n=77) were using a family planning method; 59.7% (n=114) were not using contraception; 56.0% of these were single and 2.1% said contraception was against their beliefs. The distribution of contraception methods used by the soldiers is shown in Table 2.

Soldiers stated they were informed about contraception methods by heath personnel (20.9%), the media (13.1) and friends and relatives (8.8%).

When education level and age were compared with knowledge of contraception and defining FP there was a significant difference (p<0.05). The FP practice rate was meaningfully significantly greater (p<0.05) among married soldiers.

The level of knowledge regarding STD is shown in Table 3. AIDS, hepatitis B, gonorrhea and syphilis were the STD which soldiers were knowledgeable about.

When defining STD was compared with education level, the difference was statistically significant (χ^2=25.460, p<0.05).

The answers to questions about ailments caused by STD are shown in Table 4. Sixty-three point nine percent stated STD could result in death, 53.9% stated they could cause infection in newborns and 41.9% stated they could cause infertility in both women and men.

The complications stated regarding STD are shown in Table 5. Seventy-eight percent of subjects mentioned discharge from genital organs.

Table 5
Answers by soldiers regarding symptoms of STD.

Symptoms	Number	%
Leakage from the genital organs	149	78.0
Bleeding after sexual intercourse (post coital bleeding)	64	33.5
Burning when urinating	102	53.4
Genital itching	93	48.7
Genital wound	88	46.1
Cervical lymphadenopathy (LAP)	42	22.0
Testicle pain	57	29.8
Abdominal pain	15	7.9
Diarrhea - Nausea	17	8.9
Headache - Dizziness	16	8.4

Table 6
Responses of soldiers about preferred method of protection against STD.

Methods	Number	%
Condoms	143	74.9
Single partnership	120	62.8
Test before blood transfusion	115	60.2
Single-use of needles/syringes	113	59.2
Prenatal check-up	69	36.1
Avoiding handshake with patients	48	25.1

The most preferred protection methods against STD were condom use (74.9%), single partnership 62.8%, testing before blood transfusion 60.2%, single-use of needles and syringes (59.2%) (Table 6).

The responses to the question of the most common ways of transmitting AIDS were as follows: blood transfusion (85.3%), through the placenta (56.0%), by touching (2.1%), through collective use of household goods and clothing (6.3 %), by flies (20.9%) and through public toilets, bathrooms and swimming pools (9.9 %).

DISCUSSION

Subject ages ranged from 20 to 33 with an average age of 24±3.15 years. In a survey carried out by Özer *et al* (2003) among army troops, the average age of the participants was 23±2.8 years.

In our survey 13.6% of the soldiers were unemployed. In the survey carried out by Özer *et al* (2003) in Ankara, 43.8% of participants were high-level employees, such as physicians and administrators, but only 9.1% were unemployed.

Contraception methods stated by subjects were condoms (67.5%), contraception pills (42.9%), contraception spiral (40.8%) and withdrawal 25.1%. According to Turkish Population and Health Survey (TPHS) in 1998 the most well-known methods of contraception among women were: the IUD, contraception pills, condoms, tubal ligation and the withdrawal method. IUD, condom, withdrawal method and tubal ligation were the best known methods among men (Hacettepe University Population Research Institute and Measure DHS Macro International Inc, 1999). In a survey by Gunay *et al* (2007), 75% of soldiers knew at least one FP method. The best known methods were contraception pills, condoms and injectable medicines (Gunay *et al*, 2007).

In our survey the most preferred contraception methods used by women were condom (30%), IUD (3.7%), withdrawal (3.7%), contraception pills (1.6%), and tubal ligation (1.0%). The rates of contraception methods preferred according to the TPHS carried out in 1998 (Hacettepe University Population Research Institute and Measure DHS Macro International Inc, 1999) were: withdrawal (23.8%), IUD (21.0%), condoms (9.3%), tubal ligation (4.7%), and contraception pills (4.6%). Yardimci *et al* (1994) determined 28.8% of the surveyed group used the withdrawal method and 9.8% used condoms. In a survey carried out in Bangladesh by Donahoe (1996) the method preferred most by males was the condom.

Twenty point nine percent of soldiers stated their knowledge about contraceptive methods was from a paramedic, 13.1% from the media and 8.8% from friends and relatives. In similar surveys, a common information source for contraception methods was media (Tavakoli *et al,* 2003). The main information sources for soldiers about FP were media, friends, secondary school and paramedics (Gunay *et al,* 2007).

The use of FP methods was significantly more common among married soldiers ($p<0.05$). In another study, FP was more common among married males than single males (Tavakoli *et al,* 2003).

When education level was compared to knowledge of contraceptive methods, the difference was significant. Other studies performed worldwide have found similar results a higher education level among men has a positive benefit for women's reproductive health (Bustamante-Forest *et al,* 2004). In a study investigating the relationship between accepting FP and education level in males, it was found the higher the education level the higher frequency of accepting FP methods (Mistik *et al,* 2003).

AIDS (95,8%), hepatitis B (68,1%), gonorrhea (%71.2) and syphilis (50.8%) were the most known venereal diseases in this study. In a survey conducted by Kir *et al* (2004) 10% of subjects did not know AIDS is a STD disesase. Similarly 55% and 25% were unaware hepatitis B and gonorrhea were also STD, respectively. Condom use is a popular method of protection against common STD, such as AIDS. In a survey by Ceylan *et al* (2002) 27% of subjects stated they never used condoms. Sixty-eight percent of German soldiers stated their preference for protection against STD was monogamy (Pistorius *et al,* 2003). Bakir *et al* (2003) reported in their paper that although 97.9% of soldiers knew about AIDS as a STD, only 33.0% knew that condoms were needed to protect against AIDS.

Soldiers in this survey were familiar with AIDS, hepatitis B, gonorrhea and syphilis. STD protection methods stated by soldiers were: condoms (74.9%) a single partnership (62.8%), checking for HIV before receiving a blood transfusion (6.2%) and not sharing needles or syringes (59.2%). The accuracy of the responses is impressive.

When the soldiers in this survey were asked about the most common ways of transmitting AIDS, they replied through blood (85.3%), through the placenta (56.0%), by touching (2.1%), through collective use of household goods and clothing (6.3 %), by flies (20.9 %), through public toilets, bathrooms and swimming pools (9.9 %). In a study carried out in Antalya by Donmez *et al* (1998) the participants also showed an adequate knowledgeable of the ways of transmitting

AIDS; these included sexual intercourse, contact with blood and mother to child transmission. Kir *et al* (2004) reported 71% of subjects knew STD were not spread by insects, while another study found those who did not know STD were not spread by insects were 25.2% (Ceylan *et al*, 2002).

Sixty-three point nine percent of soldiers in our study stated STD can cause death, 53.9% stated STD can cause infections in newborns, 41.9% said STD can cause infertility in both men and women, 78.0% said STD can cause discharge from genital organs and 53.4% said it can cause itching when urinating. In another survey conducted on adolescents in Italy, 14% had a correct knowledge regarding STD (Trani *et al*, 2005).

In summary, in our survey, subjects with a higher education level and greater age were more likely to define FP correctly, to identify STD and know how to prevent against STD. FP method use among single males was considerably lower than married males. The most frequently stated methods were condoms, IUD and oral contraceptives. Using condoms was the primary FP method listed. Knowledge about STD was low except for AIDS, hepatitis B, gonorrhea and syphilis. This survey shows the soldiers' knowledge of STD and FP in Turkey is insufficient. Education about sexuality, FP and STD should be strengthened and expanded.

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