

Rape and related health problems in Adigrat Zonal Hospital, Tigray Region, Ethiopia

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Abstract

Background: Rape is a form of sexual violence, which is associated with long and short-term sexual, reproductive, mental and social problems. Although the problem is believed to be common, studies from Ethiopia are scanty.

Objective: To determine the magnitude, associated factors and complications of rape at a district hospital.

Methods: A prospective study (May 1,2000-April 30,2003) was employed to assess the problem. A standard questionnaire was used to collect information from history, physical examination and laboratory findings at presentation and from a follow up of three months.

Results: Within the study period, 181 victims reported to have been raped. Children and adolescents comprise 60.2% of the cases. Majority (91.7%) came from urban areas, about 70% were students and 76.8% were single. About 20% of the victims said they were raped before and the other 20% reported attempted rape. Forced sexual initiation was reported by 67.4%. Gang rape was reported in 6% of the victims who reported previous rape cases and 8.8% of the victims reported in the current one. Only 42% of the rapists were arrested even though the patients identified 90% of the perpetrators. About 30% of the patients had physical injuries to their bodies and 40% had minor and major genital findings. The victims also reported contracting sexually transmitted diseases, sexual and psychiatric problems and unwanted pregnancy.

Conclusion: Community based efforts, school based programs, legal and policy reforms may be important to decrease the magnitude of the problem. [*Ethiop.J.Health Dev.* 2004;18(3):140-144]

Introduction

Rape is a form of sexual violence, defined as physically forced or otherwise coerced penetration of the vulva or anus, using the penis, other body parts or an object. The attempt to do so is known as attempted rape and rape of a person by more than one perpetrator is called gang rape (1-3). It may be classified as (3, 4):

1. *Statutory rape*- rape of victims whose are under the age of consent, which may vary from 12 to 18 years. Committing sexual intercourse with a member of this age group, with or without their consent is classified as statutory rape.
2. *Forcible rape*- when sexual intercourse occurs in these women without their consent through the use of force or threats or fraud.
3. *Marital rape*- when a husband forces his wife for sexual intercourse within her will, it is classified as marital rape. Significant proportion of non-consensual sex takes place without consensual unions.

Rape is influenced by many factors operating in a range of social, cultural and economic contexts. At the heart of the problem is gender inequality and frequently rape is an expression of power, dominance over the person assaulted and another medium of male control (1, 3).

The incidence of rape varies in different parts of the world. A national wide study on women in the USA showed that 13% of adult American women were

forcibly raped during their lifetime and 0.7% of these occurred during the previous year of the survey (5). In the Czech Republic 11.6% of women over the age of 15years reported forced sexual contact in their life times with 3.4% of them reporting that it occurred more than once (6). In South Africa 1.3% of females between the ages of 18-49 years were raped in one-year alone (1). Multiple perpetrators were involved in 10% of rape cases in the USA and in South Africa one third of women attending medico legal clinics following rape were due to gang rape (7, 8).

In Ethiopia the incidence of rape in the general population is not known. In one study, the prevalence of rape among female street adolescents in Addis Ababa was shown to be 15.6% in the past three months of the survey. In the same study only 16% of the rape cases were reported to the police, a few being arrested and even fewer a being to trial and getting convicted. Medical attention was sought in about 17% of the rape victims (4).

Rape is associated with long and short-term sexual, reproductive, mental and social problems. Sexually transmitted infections; genital and non-genital injuries, pregnancy, insomnia, and suicidal tendencies are some of the consequences of rape. Victims may be stigmatized and ostracized by their families. About 17% in Ethiopia, 15-18% in Mexico and 5% of victims in the USA got pregnant after rape. Six percent of schoolgirls attempted

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suicide after rape in Ethiopia and 15% were reported to have developed suicidal behavior in Canada (1, 9-13).

There are different factors that predispose a woman for rape. Poverty, alcohol and drug consumption, previous history of rape or sexual abuse, and cultural factors are reported to predispose women for rape (14-17). In Ethiopia rape is believed to be common because of the above factors but little is reported about the issue. Knowledge of the incidence, predisposing factors and associated rape complication are essential as a basis for intervention. In view of the above important facts, more studies should be conducted about rape to determine the extent of the problem and its impact on the physical, mental and social well being of women. The objectives of this hospital-based study are:-

- (1) To assess the magnitude of the problem at a district hospital
- (2) To determine factors associated with rape and
- (3) To examine associated complications

Methods

Adigrat town is about 1000 kms away from the Ethiopian capital Addis Ababa. It is located in the northern most part of the country, about 35kms from the boarder with Eritrea. Adigrat Hospital is located in Adigrat town, which is the administrative town of the Eastern Zonal Administration. The population of the town is about 120,000 and that of the Eastern Zone is about 800,000. After the border conflict with Eritrea tens of thousands of the people were displaced and started residing in the town. Adigrat Hospital is one of the seven Zonal Hospitals in Tigray region. Totally the hospital has 110 beds and there are 20 nurses, 36 health assistants, 4 general practitioners, 1 pediatrician and 1 gynecologist and obstetrician working in different sections. At the outpatient department about 250 patients visit the hospital each day to the various sections (general OPD, gynecological OPD, dental clinic, ophthalmic clinic and HIV counseling and screening unit). The inpatient section gives services to medical, pediatric, gynecological, obstetrical and surgical patients.

A standard questionnaire was prepared to collect information from patients who reported to have been raped. Their socio-demographic situation, previous history of rape or attempted rape, any physical or genital injuries sustained and associated complications were examined. All patients who reported to have been raped from May 1, 2000 to April 30, 2003 were included in the study.

At the initial visit, the designated physician working at the OPD did rape history and physical examinations. Patients were referred to the gynecological OPD as early as possible for assessment by a gynecologist and findings were documented. Another independent physician working in the hospital filled information regarding history, physical examination and laboratory findings

into a questionnaire. Laboratory testes for sexually transmitted infections including HIV of being raped were done. For patients who came within 12 hours, a vaginal specimen was taken to examine the presence of any motile sperm. Post-coital contraception and prophylaxis for sexually transmitted infections were given in cases where patients came at the appropriate time. Patients were advised to return to the hospital as immediately as possible if they developed any problems such as vaginal discharge, vulvar ulcer or urinary complaints. Otherwise, they were told to come back after 3 months for further follow up.

After the initial visit to the hospital and the end of three months follow up, blood sample was taken anonymously from every patient and screened for HIV and syphilis at the regional laboratory. All patients were counseled about HIV screening and for those who were willing for screening, post test counseling was done and the results were reported accordingly. Verbal consent was obtained from all the study subjects for their information.

The following definitions were used to classify raped patients.

1. *Rape*- forced physical penetration of the vulva or anus using a penis, other body parts or an object. Any attempt to do so is called attempted rape.
2. *Gang rape*- when more than one perpetrator is reported to be involved.
3. *Sexually transmitted infections*:- A patient is classified as having sexually transmitted diseases if she/he has vaginal discharge, genital ulcer, enlarged lymph nodes and other characteristics.
4. *Sever genital injury* is defined when the victim has any degree of perineal tear.

The data were entered, cleared and analyzed using EPI – INFO statistical package software.

Results

A total of 181 reported rape cases were formed in the gynecological out patient department. The age of patients ranged from 8 to 40 years and the mean age was 18.37. The majority (60.2%) of the patients were 18 years old or below. Fifty-four patients (29.8%) were under 14 years of age, 55 (30.4%) were between 14 and 18 years and 72 (39.8%) were above 18 years of age. A majority (91.7%) of the cases were reported from urban areas. Regarding the occupation of victims, 126 (69.6%) were students, 28 (15.5%) were government employees, 10(5.5%) were maids (servants), 6(3.3%) were merchants, 2(1.1%) were housewives and 9(5%) had different other occupations. Majority (93.4%) were from the Tigrey ethnic group, 3.9% were Amhara and 2.8% were Oromos. Their educational status was elementary school in 77 (42.5%), secondary school in 55 (30.4%), university in 12(6.6%) and 37(20.4%) were illiterates. Most (92.8%) were orthodox Christians, 11(6.1%) were Muslims and 2(1.1%) were protestants. Regarding marital status,

3(1.7%) were married, 34(18.8%) were divorced, 139(76.8%) single, 1(0.6%) separated and 4(2.2%) were widowed.

Out of the total of (181) cases, 62.4% of the victims said they were raped in the rapist's home, 14.9% in a hotel, 14.9% in the victim's home and 7.7% in the bush. Regarding previous history of rape, 9.9% of the patients said they were raped once, 6.6% twice and 2.8% three times. One time previous attempted rape was reported by 12.7% of them, two times-attempted rape by 5% and three times rape by 1.7% of the cases. During the previous rape two perpetrators were involved in 4.4% and three in 1.7% of the cases. Forced sexual initiation (including the current one) was reported by 67.4% of them. Alcohol was consumed during the current assault in 15.5% of the victims and gang rape was reported by 8.8% (two perpetrators in 7.2% and three in 1.7%). The number of partners in life and the number of days from the occurrence of the rape to reporting at the hospital are shown in Tables 1 and 2.

Table 1: Number of partners victims of rape ever had in Adigrat hospital, May 1, 2000- April 30, 2003

Number partners	N	%
0	78	43.1
1	46	25.4
2	35	19.3
3	15	8.3
4	5	2.8
5	2	1.1

Table 2: Number of days between the occurrence of rape and reporting Adigrat Hospital, May 1, 2000 – April 30, 2003

Number partners	N	%
0-1	102	(56.4)
2-6	56	(30.9)
≥7	23	(12.7)

All the cases were reported to the police but only 42% of the rapists were arrested. A majority of the rapists (64.1%) took alcohol, 1.1% drugs and 34.8% didn't take alcohol or drugs. Rapists were reported to use weapons in 15.5% of the cases. The relationship of the perpetrator to the victim is shown in tables 3. The perpetrator was unknown by only 9.9% of the victims.

Table 3: Relationship of the rapist to the victim of rape in Adigrat Hospital, May 1, 2000 – April 30, 2003

Relationship	N	%
Don't know him	18	9.9
Ex husband	10	5.6
Boy friend	40	22.1
Ex boy friend	15	8.3
Step father	2	1.1
Other relative	56	30.9
Her teacher	10	5.5
Class mate	14	7.7
Other non relative	16	8.8
Total	181	100

About 30% of the patients had signs of physical injury and the most common were on the head and neck, as was found in 77.8% of the victims. About 41% of the victims had genital findings, the most common being fresh hymenal tear, which accounted for 26.5% of the victims (Table 4). Severe genital injury was found in 26 patients (14.4%). Motile sperm was reported in 8.8% of the patients slides. At presentation, signs of sexual transmitted infections were found in 24.3%, HIV positive serum in 12.2% and VDRL positive serum in 13.3% of the victims.

Table 4: Physical injuries among victims of rape seen in Adigrat Hospital, May 1, 2000 – April 30, 2003

Variable	N	%
Physical injury:		
Bruises	36	66.6
Abrasions	13	24.1
Bites	3	5.5
Echymoses	2	3.7
No	127	
Total	181	100
Genital finding:		
Hymenal tear	48	64.8
First degree perineal tear	12	16.2
Second degree perineal tear	6	8.1
Third degree perineal tear	6	8.1
Fourth degree perineal tear	2	2.7
None	107	
Total	181	100
Site of Injury: (n=54)		
Head and neck	42	77.8
Upper extremity	6	11.1
Trunk	6	11.1
Total	54	100

The development of body injuries was significantly higher among childhood and adolescent victims (age<19) (OR= 6.9; 95% CI: 2.3 – 20.8). A majority of the victims had body injuries when the rapist was unknown (55.6%). However, 10% of the victims had body injuries when the rapist was known and severe genital injuries were significantly higher among childhood and adolescent victims (OR= 3.8; 9.5% CI: 1.8-6.8).

An assessment of cases three months after presentation to the hospital revealed that out of the total of 97 respondents, 32.6% said they were divorced or separated from their partners because of the incident. After three months follow up, six patients were lost, 16 patients became pregnant, 11 of them aborted and 5 cases didn't abort. HIV status after three months was positive in 28 (16%) patients and VDRL was positive in 14.3%. Sexual and psychiatric problems during the follow up were not significantly associated with the number of rapists, body injury, genital finding, whether the victims know the rapist or not, age category, address, educational-status, previous history of rape and number of partners. Suicidal

attempts were highly associated with gang rape (37.5%) as compared to rape with one perpetrator (6.1%) ($P < 0.001$) and when the victim did not know the rapist (27.8%) as compared with when she knew the rapist (6.7%) ($P = 0.003$). (Table 5).

Table 5: Associated consequences of rape in Adigrat Hospital, May 1, 2000 – April 30, 2003

Complications	N	(%)
Decreased sexual feeling*	50	40.3
Aversion to sex**	27	21.8%
Dyspareunia	49	55.7
Psychosis	2	1.1
Suicidal attempt	16	9.1
Suicidal thought	23	13.1
Insomnia	94	53.7
Nightmare	77	44
Pregnancy	16	9.1

* Total respondents were 124

** Total respondents were 88

Discussion

Data on sexual violence can be obtained from surveys, police reports, clinical settings or non-governmental organizations. Reports from medico legal clinics represent only small proportion of all cases and it may even be biased towards more violent incidents (1). In the context of Ethiopian culture where forced sex is sometimes tolerated due to cultural influences and a majority of women are economically dependent on their husbands, much less proportion of the incidents might be reported to the police and health institutions. In a period of three years, 181 cases reported to the gynecological ward of Adigrat Zonal Hospital. It is difficult to determine from the actual incidence of rape in the general population. However, in view of the above facts, this report may be evidence that rape is a very common public health problem in this country.

The proportion of women who seek medical attention for immediate problems is variable. In this study, only 56.4% of the patients reported within 24 hours of the incident, 30.9% within a week and the rest 12.7% after a week's time. This makes post coital contraception and prophylaxis against sexually transmitted infections impossible in some patients. Evaluation of cases is dependent on history, physical examination and laboratory findings. Detection of physical injury, genital finding and the finding of motile sperm are higher in patients who arrive early to the hospital. Moreover, examination with ultraviolet light or woods light of dried seminal fluid, scrapping taken from underneath victims finger nails and any pubic hair cuttings on the victims body can't be made in this country which makes the evaluation even difficult. Hence, in addition to the clinical findings, information should be available for the physician to critically sought and integrated.

Previous history of actual rape or attempted rape was reported in about 40% of the cases. This may indicate the preponderance of certain group of women for sexual violence and the tendency of the problem to recur in some groups of patients. Being in a youth age group and consumption of alcohol may be risk factors for a woman to be raped since 60% of the cases were below the age of 19 and alcohol was consumed in 15.5% of the cases. These factors might predispose women because they may be easy targets through force or deception. Alcohol might hinder women from protecting themselves from assault. Unmarried women, students and urban residents could be another risk groups. Some authors report similarly (1, 4, 10, 14, 18), but others report marriage higher educational status, and drugs to be risk factors (1, 3, 19).

Most rape victims don't report to the police and health institutions for various reasons. Even much less number of rapists that were reported to the police were arrested (1,3). This shows that only little effort is made to prevent and minimize the problem. The victims knew most of their rapists and this finding could have a crucial importance to teach the vulnerable group that the most known men can be more risky than the unknown. Gang rape was lower in this study as compared to the study from Medico Legal Clinic in South Africa where one third of the patients were raped by more than one perpetrator but similar to that number reported from the USA where 10% of raped patients followed multiple perpetrators (7, 8).

Rape is were caused immediate and long-term sexual and reproductive health consequences. Psychological or mental health impacts may be serious and long standing (1, 3, 9-13). In this study physical injury, genital injury, sexual and psychiatric problems were found to be common health consequences following rape. More serious genital injury was common where the patients were young, and physical injury was more commonly reported in the young age group and rape followed by on unknown perpetrator. As reported by others, pregnancy, abortion, decrease in sexual feeling, painful sexual intercourse, suicidal attempts, suicidal thoughts, psychosis and insomnia were reported in this study. Sexually transmitted diseases were also other health problems identified. One third of the victims were either separated or divorced after the incident and this may be an indication of the social consequence that may follow the problem.

In conclusion, rape is one of the most common threats to a woman's health and life. It occurs through out the world in both industrialized and developing countries. The occurrence of rape is growing fast but not well reported. This study shows that the problem is common, occurs commonly at young age and little effort made to put the perpetrators to trial. The study also once again

revealed the significant health impact associated with it. However, like most other countries, little research is conducted on this problem in Ethiopia. It is, thus, recommended that community based efforts, school based programs, legal support may be important to decrease the magnitude of the problem. This hospital based study may show only the tip of the iceberg of the overall magnitude of the problem in the community. Moreover, this report may be biased towards the more violent incidents. Hence, it is further recommended that community based studies are important to determine the actual magnitude of the problem in the society.

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