

# Female Sexual Assault: Prevalence of Positive Cases from a Tertiary Care Center of Province Khyber Pakhtunkhwa

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## ABSTRACT

**Objective:** To assess the prevalence of recent/current positive cases in sexually assaulted female cases reported at a tertiary care center of the province Khyber Pakhtunkhwa.

**Methodology:** The study was designed as cross-sectional observational in nature and was conducted at District Headquarter Hospital, Swabi on a sample of 93 victims. The study span was from Jan 2021 to Dec 2021, while sample was enrolled using non-probability convenience sampling. After following ethical consideration, a pre-designed performa was used to collect the data which included demographic and sexual assault related queries. SPSS v.25.0 was used as tool to analyze and interpret data; descriptive and advanced statistics were used where needed.

**Results:** In a study sample of 93 patients, the mean age was recorded as 22.84±6.71 years with range of 4 to 41 years. In age group, age between 10-19 years was found to be most prone for assault 35 (37.63%), followed by 20-29 years 23 (25%). The study revealed that maximum of the victims were reported after 72 hours of the incident 52 (55.91%), followed by those reported in 48-72 hours 20 (21.51%). It was revealed that in 63 (67.74%) of the victims, assailant was known to her. Injuries to genital area showed that 80 (86.2%) of the victims had healed tear of hymen, followed by 8 (8.6%) having bruise over vagina. An overall positivity was recorded as 21 (22.59%) for sexual assault in serological assessment.

**Conclusion:** The results of the study conclude that about ¼ of each case reported is positive as per semen analysis in female sexual cases. Most of the cases presented were in early adulthood, were reported after 72 hours of the assault and in most cases assailant was known to the victim.

**Keywords:** Assault; Sexual Examination; Injuries; Semen analysis.

## INTRODUCTION

Nowadays sexual assault is considered a major public health issue all over the world specially in developing countries<sup>1</sup>. Sexual abuse is declared as a medical emergency<sup>2</sup>. Sexual abuse cases are examined in Pakistan by medico-legal officers and their findings are presented to the court as evidence and medico-legal officer present to the court as witness<sup>3</sup>. The main problem or hurdle in medicolegal cases specially in sexual assault cases is threat to the life of concerned staff and his/her family.<sup>3</sup>

In any emergency first aid treatment is basic right of any patient, similarly in sexual assault cases proper setup for such patients must be provided by the state as well as counselling centers for rehabilitation but unfortunately in Pakistan there is no special set up for the support of the victims. In USA, more than 0.6 M female gender are sexually assault each year.<sup>4</sup> Reported sexual assault cases are less than 20% of actual existing cases of population due to various reasons.<sup>5,6</sup> In sexual assault cases there is no age limit, the affected community may range from months (means less than one year) to old age as 80-90 years, most prone age is between 12 to 24 years in America and other countries.<sup>6,7</sup>

Sexual abuse cases must be examined immediately because with the passage of time there is more chances of evidence to get contaminated,<sup>8</sup> despite of the fact still in Portugal more than 60% of the sexual assault victims are reported after 3 days while less number of victims report in first 24 hours of the event.<sup>7</sup>

In majority cases the victims are capable to recognize their assailants according to studies conducted in different countries of the world including African, European countries and Canada.<sup>9-11</sup> In some cases of sexual assault more than one assailants are reported as in Ohio, USA<sup>12</sup>. Evidence in sexual assault cases include clothes.<sup>8</sup> Besides from cloths as an important evidence in sexual assault cases the findings on the body along with local/genital area injuries are also very important and can't be neglected. It can be helpful in determining consensual or non-consensual sexual act, which is very important legal aspect. To obtain good results in injuries examination application of chemical named Toluidine blue to the affected areas will highlight the injuries.<sup>13</sup> the most important evidence in sexual assault

examination is to get swabs from both assailant and victim for semen and DNA analysis for identification of individual involved in this event.<sup>14</sup>

This study was conducted to determine different aspects of this important public health problem. This will help in designing strategies in countries like ours to prevent vulnerable population from being abused and help in educating them. The study aim to assess the prevalence of recent positive cases among female sexual assault cases reported at a tertiary care center of the province Khyber Pakhtunkhwa.

## METHODOLOGY

The design of the study was cross-sectional observational and was spread over a record from time of one year i.e Jan 2021 to Dec 2021. The study was conducted at a tertiary care setting of DHQ Hospital, Swabi while samples were tested at Forensic Science Laboratory, Peshawar.

After following all ethical approvals and permission to collect the data from the administration of the concerned hospital, using non-probability sampling all cases of any age was included in this study. Any case with incomplete information or being deficient in any document was excluded from this study. A pre-designed performa was formulated to extract that data, which included a demographic part and then relevant part for sexual assault positivity.

The extracted data was then transformed on a digital mean, which was then analyzed using SPSS v.25.0. Descriptive statistics like frequency, mean and stand deviation were calculated for qualitative and quantitative variables, while advanced statistics were applied to measure the association.

## RESULTS

A total of 93 cases were analyzed in this study with an age of 22.84±6.71 years, while age was 4 to 49 years. The study found age between 10 to 19 years as most vulnerable age for being victimized as shown in table 1. The study revealed that maximum of the victims were reported after 72 hours of the incident 52 (55.91%), followed by those reported in 48-72 hours 20 (21.51%), followed by reported victims in 24-48 hours as 11 (11.82%) and

least common were those reported in less than 24 hours 10 (10.75%). The data revealed that in maximum of the cases the assailant was known to the victim with numbers of 63 (67.74%), while in most of the cases the clothes of the victim were changed 76 (81.72%).

Injuries recorded at different genital areas are reflected in table. 2. The study showed an overall of 21 (22.59%) of the population being tested positive for serological semen analysis.

Table 1: Age Group for the Recorded Cases (n=93)

Age Group (Years)	Frequency (Percentage)
0-9	6 (6.45%)
10-19	35 (37.63%)
20-29	23 (25%)
30-39	18 (19.35%)
40-49	11 (11.82%)

Table 2: Injuries Reported at Genetal Area (n=93)

Injuries	Frequency (Percentage)
Intact hymen	6 (6.45%)
Fresh tear hymen	7 (7.53%)
Healed tear hymen	80 (86.02%)
Bruised labia	5 (5.38%)
Bruised vagina	8 (8.6%)

## DISCUSSION

In our study, the victims of the sexual assault age ranged from 1-49 years, most commonly affected group was 10-19 years 35(37.63%) which is similar to study conducted in Bangladesh<sup>15</sup> and also some other studies conducted in European nations.<sup>2,4,6,16</sup> Most commonly affected age group of sexual abuse in studies conducted in Canada<sup>11</sup> and African country<sup>9</sup> was 19-30 years of age which show deviation from our study. In our study younger age group of people is most commonly affected as compared to Canadian and African studies because of lack of education about sexual abuse.

In this study no female whose age was >40 years was sexually abused. In this study no women of age more than 40 was found to have been sexually abused. Therefore it is the need of the day to educate females about sexual harassment. Education about sex to their children in our culture is considered as a sin.

In this study reported victims of sexual assault cases within 24-48 hours constitute 11.83% of all cases. Maximum cases were reported after 72 hours of incident 52 (55.91%) followed by reported in 48-72 hours 20 (21.51%). while least cases were reported within 24 hours of the incident 10 (10.75%). This study is in correspondence to study conducted in Bangladesh where the same trend is found<sup>15</sup>. This study shows deviation from the results of studies conducted in Portugal<sup>7</sup>, Scandinavian countries<sup>2</sup> and African country<sup>9</sup> where majority of victims of sexual assault up to 80% reported within 24 hours.

A study conducted in America show that >90% cases were reported within first 24 hours after incident.<sup>8</sup> late reporting of sexual assault victims in our culture and society is because of the reason that victims do not want to disclose this news to their parents or brothers or guardians because they consider it a shame for themselves as well as for their families and also one reason to save the family honor.

There is lack of education about how to tackle sexual assault victim cases regarding victim complaint, checkup as well as which materials should be preserved. A study conducted demonstrated that >90% cases of sexual assault the results were positive when medicolegal examination performed as early as possible means within 24 hours.<sup>8</sup>

In majority studies conducted the assailant was recognized by victim in up to 90%.<sup>17-21</sup>, which is in contrast to this study in which recognition of assailant by victim is 52%. Similarly studies conducted in African country and Canada<sup>9,11</sup> the trend is found to be less lower was 27-34%.

In our study we found that in 21% of the cases the victims are assaulted by more than one person, in 99% of such cases the

victim knew the assailant. This trend of assaults by more than one person is more or equal to our study (21%) as compared to the studies conducted in Canada (16%) and America (20%).<sup>12,16</sup> In 47% cases the victim recognized the assailant according to study conducted in Canada.<sup>7</sup>

## CONCLUSION

The results of the study conclude that about ¼ of each case reported is positive as per semen analysis in female sexual cases. Most of the cases presented were in early adulthood, were reported after 72 hours of the assault and in most cases assailant was known to the victim.

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