

# Prevalence of Recent Examination Positivity Rate among Female Sexual Assault Cases Reported at a District Headquarter Hospital of Pakistan

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## **ABSTRACT:**

**Objective:** To determine prevalence of recent examination positivity rate among female sexual assault cases reported at a district headquarter hospital of Pakistan

**Methodology:** This cross sectional observational study was conducted in Department of Accident and Emergency, District Headquarter Hospital, Abbottabad, Pakistan from July 2018 to Dec 2018, wherein data for the year 2018 from January to December was analyzed and reported. After taking permission from hospital administration, and ensuring confidentiality of the victimsthe data was extracted and recorded on a pre-designed performa. SPSS v.23.0 was used to analyze the data; descriptive and analytical statistics were applied where needed.

**Results:** The mean age of the sample (n=103) was 21.84±1.71years. In the examination, about 35 (33.98%) were positive for sexual assault in their examination. The most prevalent age group among the participants was 10-19 years with 39 (37.86%) victims. Most of the cases 56 (54.37%) reported were after the span of 72 hours. In about 53 (51.5%) of the cases the assailant was known to the victim. As per changes cloth setting 78 (75.73%) presented with a changed dress. As per injuries, 89 (86.41%) presented with healed tear, while 9 (8.74%) had fresh tear. Labia & Vagina showed bruise in 8 (7.77%)&9 (8.74%) of cases.

**Conclusion:** The results conclude that only 1/3 of the cases presented for sexual assault examination shows evidence of recent examination positivity. Young females, presenting after 72 hours and known to assailant were more common victims among the sexual assault cases reported.

**Key Words:** Sexual assault; Examination; Genital injuries; Duration of arrival.

## **INTRODUCTION**

Today world is recognizing sexual abuse an issue of public health<sup>1</sup> and is also recognized as medical

emergency<sup>2</sup>. Sexual assault is framed in Pakistan legal and judicial system as like developing and developed world. Forensic specialist or Medical officer doing his medico-legal job is mainly involved in the recording and presentation of findings as evidence<sup>3</sup>. The flaws that are found in this whole process possess a threat to satisfactory service provision to the victims of sexual abuse.<sup>3</sup> It should be first hand response to sexual abuse that medical treatment of injuries are provided to the victim along with counseling of the victim beside recording and collection of evidence. No special units have been set up for complete support of the victim in Pakistan unlike the developed world. In United State of America, more than 0.6 M women are sexually abused each year.<sup>4</sup> It is also important to mention that the reported cases are on average 20% of actual cases.<sup>5,6</sup> Though no age is exempted, from less than 1 year to as old as 85 years, most prone age is between 12 to 24 years in USA and other countries.<sup>6,7</sup> More the time passed since sexual assault, more chances of no documentation of injuries and collection of evidence.<sup>8</sup> Still in Portugal more than 35% of the victims report during first 24 Hours of the event and high number of victims report after 72 hours of the event.<sup>7</sup>

Most of the time the victims know their assaulters according to different studies in Nairobi, Denmark and Canada<sup>9-11</sup> and more than one assaulters are reported in a number of cases in Ohio, USA<sup>12</sup>. The cloths and linen are important in finding forensic evidence of sexual abuse in most of the cases.<sup>8</sup> But findings on the body might be helpful in determining the use of force or violence along with local/genital area injuries. It can be helpful in determining consensual or non-consensual sexual act, which is very important legal aspect. Application of Toluidine blue to the affected areas will highlight the injuries.<sup>13</sup> Obtaining semen/sperms in the swabs from the body of victim is crucial evidence specially semen grouping and DNA typing of the stains when required. Similarly penile swabs taken from the suspect leading to isolation of female DNA of the victim is also very helpful.<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

## **METHODOLOGY**

This observational cross sectional observational study was conducted in Accident and Emergency Department, District Headquarter Hospital, Abbottabad, Pakistan from July 2018 to Dec 2018, wherein data for the year 2018 from January to December was analyzed and reported. The study was conducted after taking administrative approval from hospital management. All ethical principles including confidentiality of the participants were fully ensured. The sample was enrolled using non-probability consecutive sampling. All females of any age were included in the study, while any case with incomplete case records, documents, and reporting was excluded from the study. A pre-designed performa was constructed to extract the information from already reported sexual assault reports. The performa had particular examination question is section B, while section A had the demographic details.

SPSS v.23.0 was used to analyze the data; descriptive and analytical statistics were applied where needed.

## **RESULTS**

The study analyzed a total of 103 cases with a mean age of 21.84±1.71 years, and age range of 5-37 years. The most prone age was found to be adult age between 12-25 years as described in Table No: 1. Most of the cases 56 (54.37%) reported were after the span of 72 hours, which can be a reason of low prevalence of

assault as shown in Table 1. In 53 (51.5%) of the cases the assailant was known to the victim. In 78 (75.73%) of the cases the victim was brought with a cloth change to the facility for examination while in rest 25 (24.27%). Injuries to genital area is reported in Table No: 2. The study revealed that in 21 (20.39%) cases more than one assailant was involved, while rest had only one assailant. The study shows that about 35 (33.98%) were positive in sexual assault examination.

**TABLE NO: 1 AGE GROUP AND TIME DURATIONS FOR SEXUAL CASES (N=103)**

Variable		Frequency (Percentage)
<b>Age Group (Years)</b>	0-9	8 (7.77%)
	10-19	39 (37.86%)
	20-29	27 (26.21%)
	30-39	18 (17.48%)
	40-49	11 (10.68%)
<b>Time Duration</b>	Lessthan24hours	13 (12.62%)
	24-48hours	12 (11.65%)
	48-72hours	22 (21.36%)
	Morethan72hours	56 (54.37%)

**TABLE NO: 2 INJURIES TO THE GENITAL AREA (N=103)**

Injuries		Frequency (Percentage)
<b>Hymen</b>	Intact	5 (4.85%)
	Fresh tear	9 (8.74%)
	Healed tear	89 (86.41%)
<b>Labia</b>	Bruise	8 (7.77%)
<b>Vagina</b>	Bruise	9 (8.74%)

**DISCUSSION:**

In our study, the victim age ranged from more than 6 years to less than 40 years in which the age group most prone was 10-19(37.86%). This is in comparison with studies conducted in Bangladesh<sup>15</sup> and some other western countries<sup>2,4,6,16</sup>. In Canada<sup>11</sup> and Nairobi<sup>9</sup> the most prone group to sexual abuse was found 19-30 years of age. In our study the age group is younger because of lack of information and inexperience of the younger female in our society. With age individuals learn to understand society and to protect themselves from such miscreants. In this study no women of age more than 40 was found to have been sexually abused. The need to educate females regarding this public health issue before reaching puberty so that they can protect themselves better on time. Discussion of the process of adulthood by the parents with their children is a real taboo in our society. On daily basis working class of females in our society face such incidents, educating them regarding identifying such events and proper responding to such incidents is very important so that they can protect themselves.

In this study it is found that out of all the victims only 12.62% of them reported for a medical examination in first 24 hours and it increases with passing time where 54.37% of them reported after 72 hours. This result is almost similar to study in Bangladesh where the same trend is found<sup>15</sup>. This study is found to have

different result that studies in Portugal<sup>7</sup>, Scandinavian countries<sup>2</sup> and Nairobi<sup>9</sup> where more victims (61-80%) tend to show up for examination within first 24 Hours. This figure is more than 90% in USA.<sup>8</sup> Involvement of victims in decision making process in our society plays a very important role in late reporting of the cases where such incidents are considered as insult to the family. Delay in the reporting is because usually the victim is reluctant to talk to brother or mother about it, and when victim develops courage to talk to men of the family much time is passed. After which the family takes more time in deciding whether to make it public and complain about it or remain silent in order to save the family honor.

There is no clear education or information available to the family of the victim regarding further proceeding with the complaint and how to tackle such incidents along with acquiring evidence. There is no mechanism in place for the protection of the victim and her/his family as these matters are likely go into public and the chance of secrecy and privacy is low. Medical examination performed after days and weeks results in no gain as important evidence might be lost at that time. Examination performed as early as within first 24 hours results in more than 90% positive forensic evidence.<sup>8</sup> Like other countries in the world where the assailant was known to all age female victims in 50 to 89% of the cases<sup>17-21</sup>, in this study this trend is about 51.5%. While in Nairobi and Canada<sup>9,11</sup> the trend is found to be less lower which was 26-33%. The obvious reason for this is the trust the victim place upon the assailant who is a relative or already known to the victim before the event. This relationship of trust between the victim and assaulter is the main reason behind this trend.

In our study we found that in 20.39% of the cases the victims are assaulted by more than one person, in 99% of such cases the victim knew the assailant. However, if all the where the assailant was one, 43.54% cases were found where the victim knew the assailant. This trend of assaults by more than one person is more or equal to in our study (20.39%) as compared to the studies conducted in Toronto (16%) and US (20%).<sup>12,16</sup> In another study conducted in Canada the results shows that in 47% of the cases the assaulter was known to the victim.<sup>7</sup>

## CONCLUSION

The results conclude that only 1/3 of the cases presented for sexual assault examination shows evidence of recent examination positivity. Young females, presenting after 72 hours and known to assailant were more common victims among the sexual assault cases reported.

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