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Female Sexual Events Referred To Medico-Legal Institute in Erbil

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Abstract

Background and Objective: Sexual abuse is a major global problem that impacts millions of women and claims one survivor every 45 seconds, according to the American Medical Association. It is a significant public health issue, and the societal crisis has grown beyond the limits of social and cultural freedom. Indeed, SA survivors live with the aftereffects of the attack for the rest of their lives. This study aimed to look into Female Sexual Events Referred to Medico-Legal Institutes in Erbil.

Methods: The prospective research is conducted; it covers rape, newly-married, and trauma cases (fall from height or on sharp objects, and traffic accidents). The medico-legal institute received the cases at Rizgary teaching hospital in Erbil governorate between 1st December 2013 and 1st July 2014. It includes a total of 110 cases.

Results: These cases were classified as raped in 50 45%% of cases, traumatic in 30 27% of cases, and married in 30 27% of cases. In raped cases, the age ranged from (2-35) years old, with a mean of (17.446.42), among raped group majority of them have no trauma in the body years (76 %), and (64%) in non-use of force and weapon, with the consensual sexual act but regarded as a raped case because they are under 18 years old. And the most common site for the tear in the hymen is at 6 o'clock (i.e.) the posteroinferior area of the vagina. Regarding the duration of the tear in raped cases (32%) is new tear while for traumatic is (70%), and for married is (60%). For the type of sexual act, the most common route is both anal and vaginal, which is (58%). Regarding the frequency of anal injury in sodomy cases (56%), of them have an anal injury (dilated or funnel shape), but dilation with tear is about (2%).

Conclusion: We concluded from our investigation that the presence and extent of the tear in the hymen are critical factors in diagnosing cases of rape and trauma.

Keywords: Sexual Violence, Abuse, Female, Erbil

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Introduction

Sexual assault (SA) is sexual contact of one person with another without appropriate verbal legal consent. The precise definition varies slightly from country to country, and health care providers should familiarize themselves with the description in their jurisdiction. It is a widespread occurrence that permeates every facet of our society and can affect anyone regardless of gender, age, race, or socioeconomic status.[1, 2]

In 2009 about (88000) forcible cases of rapes were reported to law enforcement in the United States.[2] This number is estimated to represent only 40% of the total sexual assaults because most cases go unreported. The National Violence Against Women Survey found that 18% of surveyed women (1 in 6) this mean one in every six women.[3] Acquaintances or intimate partners assault most females, and 32% by a stranger.[4] Young females between the ages of 16 and 24 are disproportionately affected. For affected males, underreporting of their victimization is normal. During the last decade, an alarming increase has been observed in reports of drug-facilitated sexual assault.[5]

Thus, according to this description, SA can manifest in a variety of ways and under a variety of circumstances. For instance, a person may be sexually abused by someone regardless of age, sex/gender, or by one or more individuals (e.g. gang rape). Furthermore, SA can occur in any environment, including the home, office, school, jail, public room, and car. The perpetrator may be a date, spouse, companion, family member, intimate partner, former intimate partner, colleague, authority figure, or outsider to the victim.[6] A sexual assault patient will most often walk into the emergency department (ED) alone or in the company of a friend or family member. Alternatively, they may be accompanied by law enforcement officers or transported by emergency medical services.[4, 7]

The individual may be seen immediately or long after the assault. A sexual assault patient initially evaluated within 120 hours (5 days) of the assault should be considered a high-priority patient and be brought to a designated treatment area as soon as possible according to the Istanbul protocol, while in our locality, it should be within 72 hours even some time according to our local data, after 24 hours it will be primarily negative.[7] The reason for this is manifold and includes providing crisis intervention, treating injuries, administering time-sensitive medications, and expediting the evidentiary examination to minimize loss or deterioration of forensic evidence. It is prudent for ED to have a systematic management plan for these patients from triage to discharge.[5]

In some instances, the agreement does not constitute voluntarily granted permission. The same is true for sexual acts affecting people that are incapable of assisting, that is, persons that are incapable of comprehending the meaning of the performance or of showing their acceptance or resistance (e.g., those that are incapacitated

by the influence of alcohol or medications, or those that have a mental disability); such acts are often referred to as nonconsensual.[8] The investigation of a sexual assault has several team members: law enforcement, forensic medical examiners, victim advocates, criminalists, prosecuting attorneys. This team is referred to as a Sexual Assault Response Team (SART). All members of a SART team are highly trained professionals.[9]

The various roles of team members come into play at different stages of the investigation. Crime laboratory analyses typically occur well after the victim examination and collection of physical evidence.[10] Consequently, the laboratory findings are not routinely disclosed to the medical examiner, victim advocates, or the victims. Feedback to the SART team regarding evidence recovery and analysis has been infrequent, leaving knowledge gaps concerning the collected evidence's fate. This type of feedback for the SART is essential for improved care of the victim, evidence collection and associated legal issues.[11] The forensic medical report summarizes the victim's account of the acts committed during the alleged assault. The forensic medical examiner uses this information from the history of events to guide the physical examination and evidence collection. The criminalist issue is what information from the forensic medical report can be relied upon to conduct subsequent analysis of the collected evidence to maximize the yield of probative findings.[6] Sexual jurisprudence deals with the medico-legal aspects of virginity, impotence, sterility, artificial insemination, pregnancy, abortion, delivery, etc..[7]

On the one hand, various types of sexual offences and sexual perversions, on the other hand. Related medical issues needing legal investigation have been discussed to enable medical professionals to handle such situations independently and easily whenever an occasion arises.[8] This study is designed to achieve more information and educational purpose about sexual assault by measuring the disability caused by sexual assault to the victims from a medico-legal point of view. Therefore, this research aimed to present and discuss the Female Sexual Events Referred To Medico-Legal Institute in Erbil.

Materials and Methods

The prospective study is performed, which involved robbery, newly married, and trauma events (fall from height or on sharp objects, and traffic accidents). From 1st December 2013 to 1st July 2014, our medico-legal institute has received all cases at Rizgary teaching hospital in Erbil governorate. The study was started after gaining of Ethical Committee of Hawler Medical University's thesis.

Once the situation occurred, the case was reported to the judicial investigator in that area, who arranges for an examination to be performed. During this period, all cases that

received were examined by forensic specialist and gynaecologist, hymen, and anal examination if there are any tears and trauma.

Materials:

The plastic packaging begins to peel away from one hand. (This has already been partially opened to apply a sticker with the sample number to the plastic tube.) The investigator now has two pieces: a plastic tube with a lid at one end and cloudy gel in the rounded bottom end, and a long ‘cotton bud with a blue plastic cover at the other.

Data collection:

This study includes a totally of 110 cases divided into three groups: group A (include all the cases of rapes) (n=50), group B (traumatic cases), include all cases received in the medico-legal institute (n=30), group C (which include mostly newly married cases attended because of their suspicious about their virginity.) (n=30) no exclusion criteria for all three groups.

Data were gathered at random using a questionnaire that included questions about their age, education, the time and location of the attacks, whether victims knew the attackers, and the assailants' features. Since obtaining written consent from victims above the age of 18 and parents of victims under 18, the questionnaire was conducted in face-to-face interviews. The results of the victims' evaluations were also reported.

Lacerations of the hymen were not regarded as a symptom of sexual events in any of my situations. Only hymen lacerations that were likely to be a symptom of sexual harassment were considered. The algorithm for dealing with sexual harassment cases was used. A forensic medicine expert from the Department of Forensic Medicine conducted detailed physical and genital exams on the victims. The obtained findings were presented with the literature.

Data analysis:

Data analysis were performed using Microsoft excel 2010, and several statistical criteria were applied to the given data by using IBM SPSS.

The approach was used; descriptive. The descriptive approach included the calculation of frequencies, percentages, means, and standard deviations. A P-value of ≤ 0.01 was considered statistically significant.

Methods

Examination procedure: after receiving the patient, we get consent information from her (page), then a general examination of the body for any evidence indicating sexual events. Then the patients were put in a lithotomy position to examine the external and internal genital tract; after that, the labia majora stretched to outside to visualize hymen if there is any tear or not. In the cases of rapes, patients should be put on dorsal lithotomy (knee-elbow position) for examination of the anal in the case of sodomy, followed by taking a swab from anal and vaginal for semen analysis (two swabs from the vagina and two from the anal).

The inspection was performed by softly parting the patient's labia with its plastic lid end swab. The swab was inserted into the vagina while pointing it into the lower back. It can quickly insert a few centimetres aim for roughly half of its length. It can't get confused or go anywhere it shouldn't! This can never be done. If the swab is safely inside, gently rotate it three times. The investigator then softly separates the labia and removes the swab. The examiner does not contact any other part of the body because this can result in the collection of other bacteria by accident!

The swab replaced quickly in its plastic bottle. It would fit neatly into the plastic container, with the end resting in the gel at the tube's bottom. The blue top at the end of the swab should match snugly. Ascertain that the swab is securely encased in its tube. Return the swab to the plastic bag and close it. These swabs were submitted to the lab within 24 hours of being collected. As part of forensic analysis, unusual specimens such as clothes, drop pads, and hair are retrieved. The sample's chain of custody must be registered.

Results

These results represent Female sexual assaults randomly to 110 cases from routinely received medico-legal institutes in Erbil were studied divided into three groups (raped cases n=50, traumatic cases n=30, and married cases n=30).

Age distribution of studied cases

In raped cases, the age is ranged from (2-35) years old, and the mean of the age (17.44±6.42), in the traumatic cases, the age is ranged from (10month-23 years old), the mean age is (8.83±6.9). The age ranges from (15-39) years old in the married group; the mean age is (22.7±4.9), as shown in table 1.

Table 1: showing the age distribution

Groups	Age range/ Years	Mean	SD
Raped	**2-35**	**17.44**	**6.42**
Traumatic	**10 month-23**	**8.83**	**6.9**
Married	**15-39**	**22.7**	**4.9**

Distribution Loss of consciousness in the raped group

Out of 50 raped cases, there were 9 cases (18%) with a history of loss of consciousness, while 41 cases (82%) had no history, as shown in figure 1.

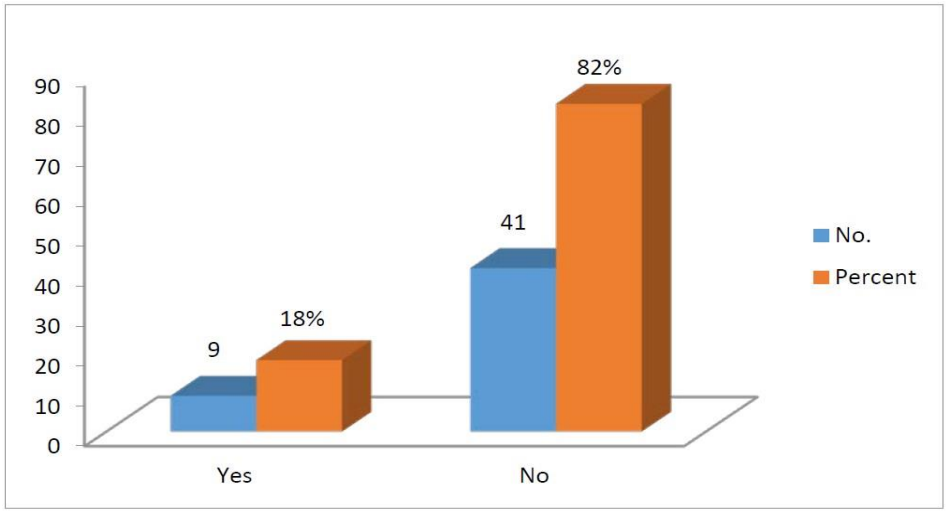

Figure 1: loss of conscious frequencies in the raped group.

Distribution Trauma to the body in a raped group

Out of 50 cases, 12 cases (24%) had trauma to the body, while 38 cases (76%) had no trauma to the body, as shown in figure 2.

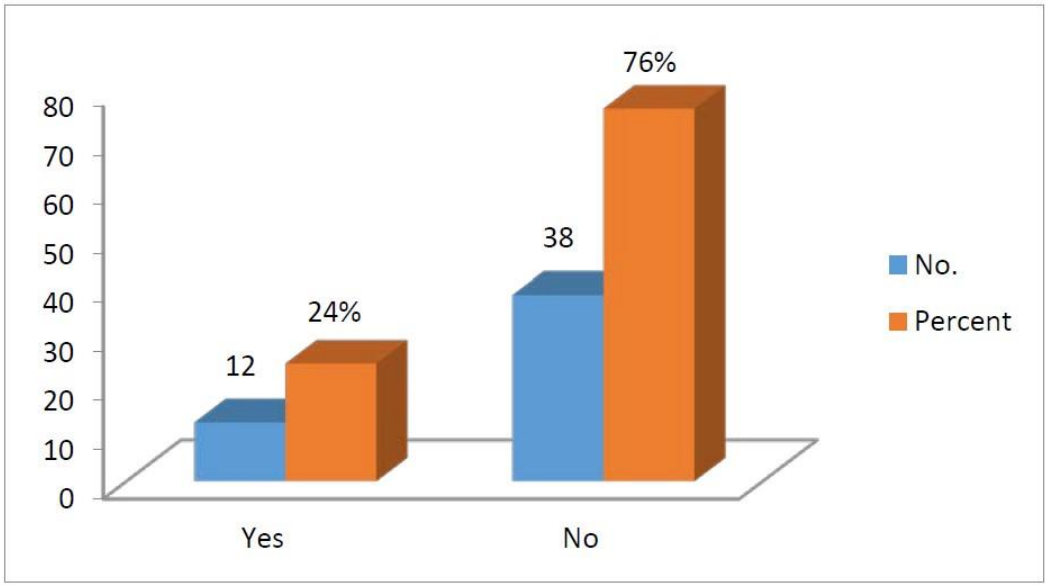

Figure 2: frequencies of trauma to body in the raped group.

Using of force or weapon in the raped group

Out of 50 raped cases, 18 cases (36%) had a history of using forces or weapons, while 32 cases (64%) had no history of using force or weapon, as shown in figure3.

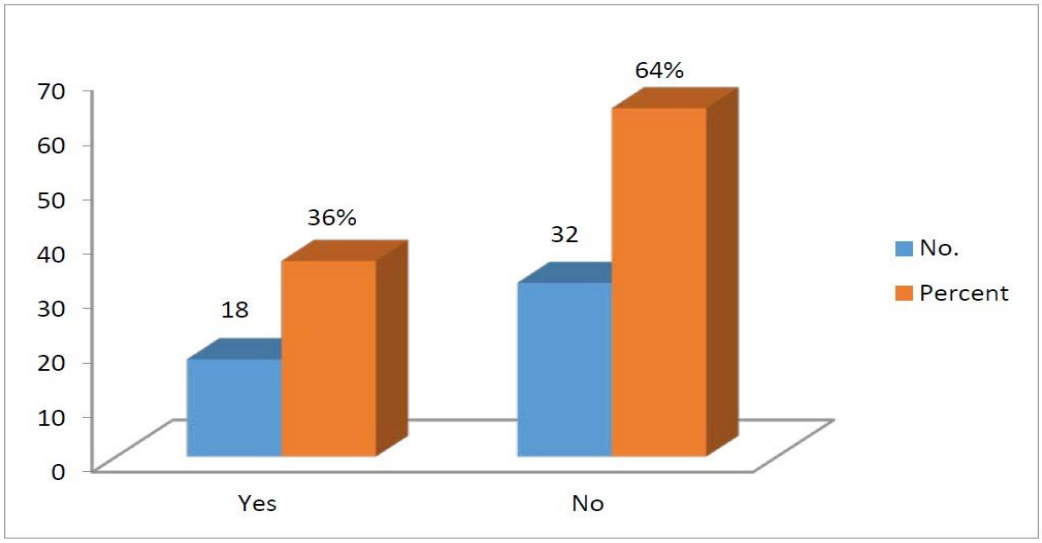

Figure 3: frequencies of using of force or weapon raped group.

Type of sexual act in the raped group

Figure 4 delineate that the sexual act divided into four types according to the mode of penetration: out of 50 raped, only 17 cases (34%) are vaginal mode, 3 cases (6%) are anal mode, manipulate to external genitalia only one case (2%), while both anal and vaginal mode together 29 cases (58%).

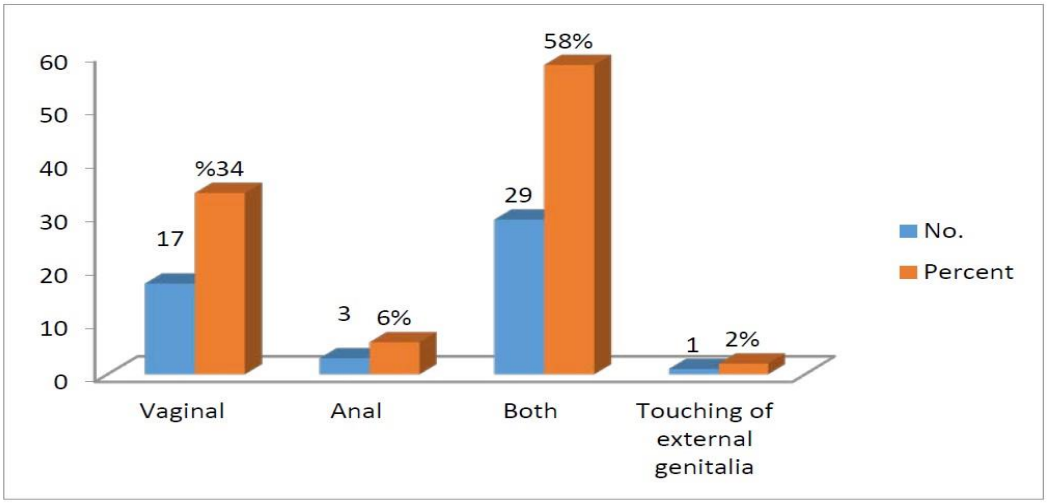

Figure 4: frequencies of types of sexual activity in the raped group.

Frequency of anal injury in sodomy cases in raped group

Frequency of dilated anal among the raped cases 28 cases (56%), not dilated 21 cases (42%), while dilated with a tear in the perineum or anal is one case (2%) as shown in figure 5.

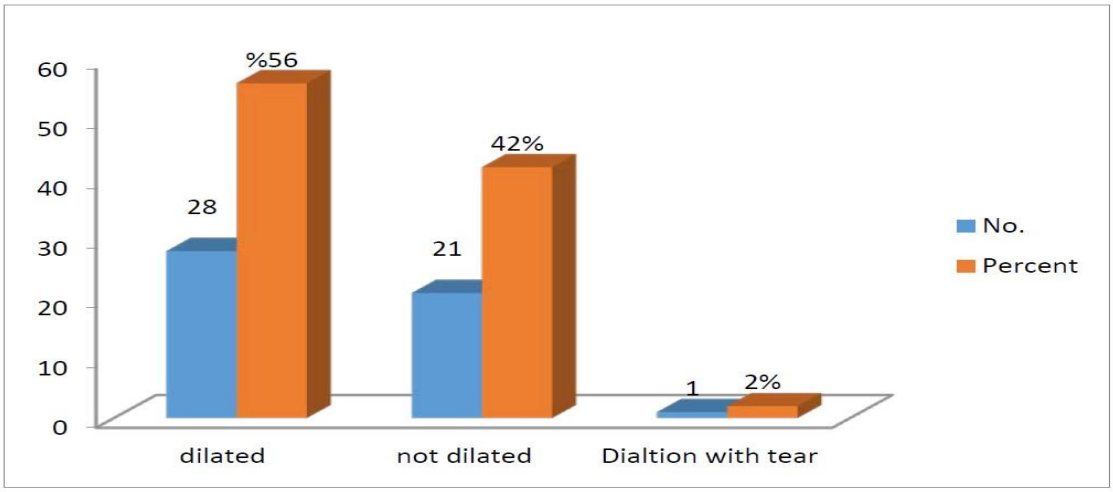

Figure 5: frequencies of anal examination in the raped group.

Swab result in the raped group

Out of 50 raped cases, 14 cases (28%) had appositive swab result, three cases (6%) had negative swab result, while 33 cases (66%) not valuable swab for more than 72 hours, as showing from figure 6.

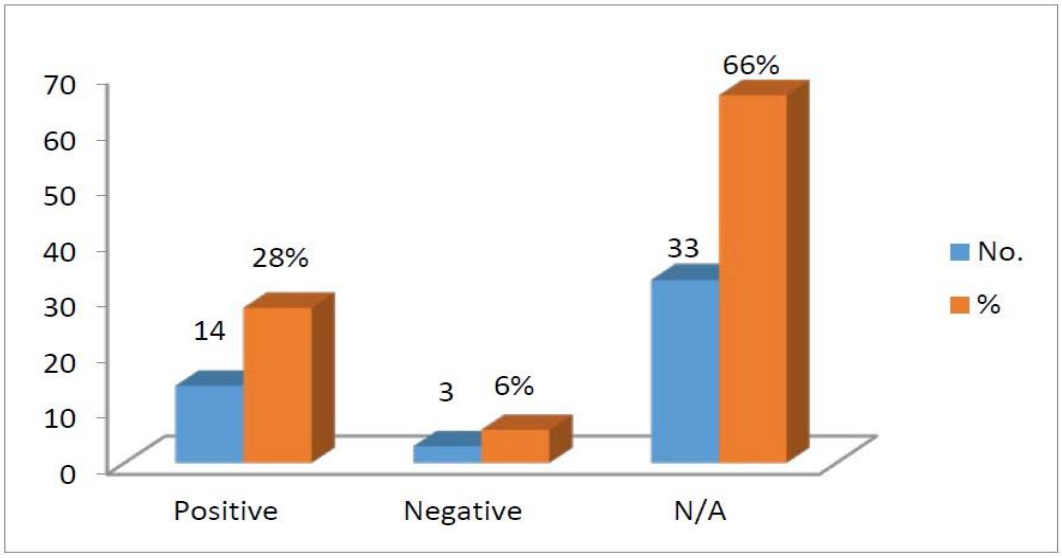

Figure 6: frequencies of swab results in the raped group.

Using of condoms or lubricant in the raped group:

Among the raped cases, only 8 cases (16%) had a history of using condom or lubricant, while 42 cases (84%) had no history of using a condom or lubricant, as showing in figure 7.

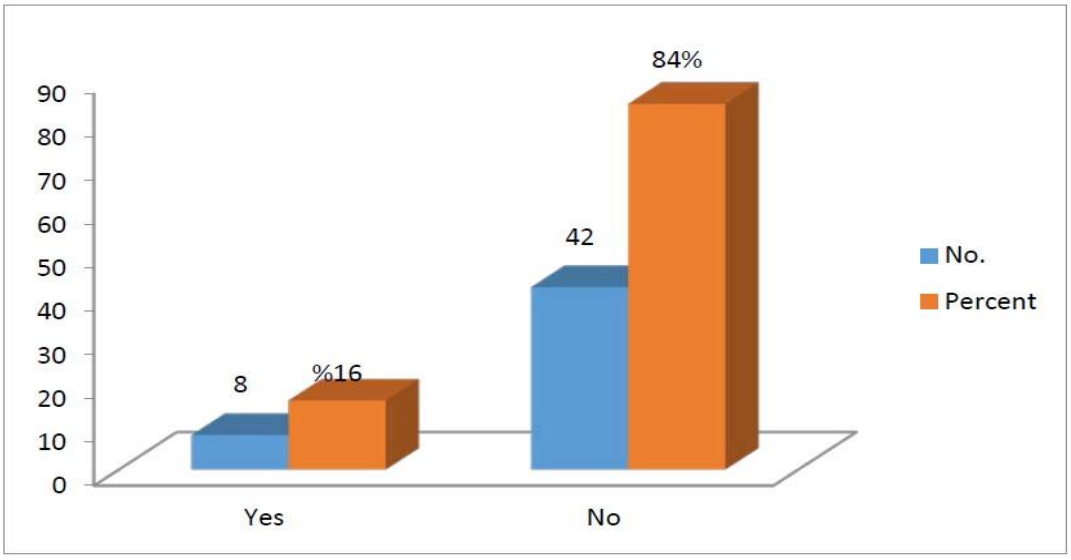

Figure7: frequencies of using of condom or lubricant in the raped group.

Types of the tear in the raped group (mean duration of the tear)

Out of 50 raped cases, 31 cases (62%) had an old tear, traumatic cases 3 cases (10%) had an old tear, while in the married group, 7 cases (23.3%) had an old tear. About recent tear among raped cases 16 cases (32%), in traumatic cases 21 (70%), in married cases 18 cases (60%) had a new tear.

Intact hymen of elastic type among raped group three case (6%) traumatic group 6 cases (20%), in married group 5 cases (16%) as shown in figure 8.

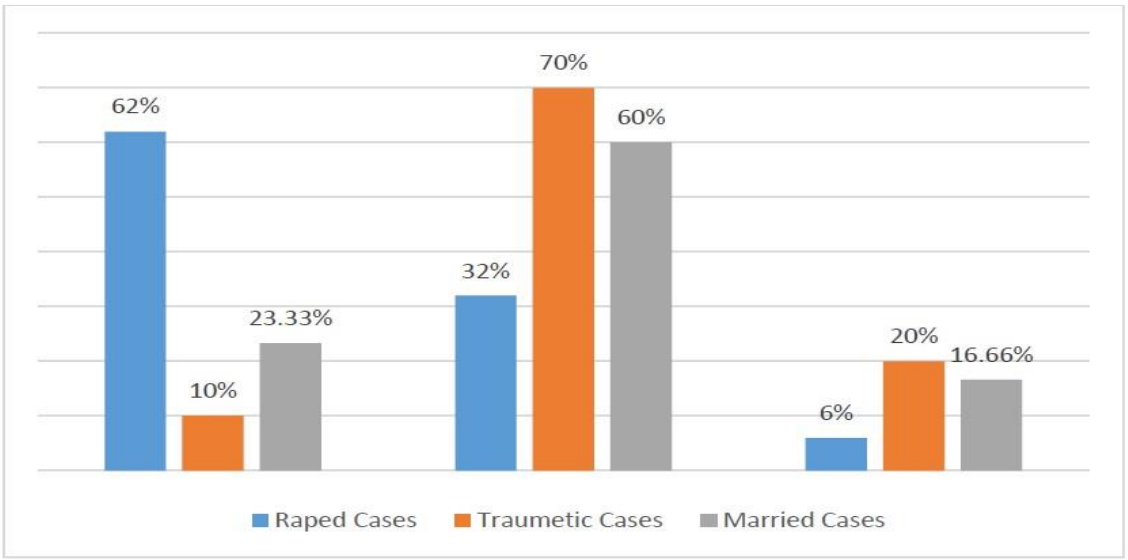

Figure 8: frequencies of the duration of the tear in all three groups.

The origin of the tear in the hymen will be determined by o'clock

Six o'clock is the most common type of location (the tear of the hymen is close to the perineal

area), among raped cases, 34%, while among the two other groups 33%.

The second most common type is 9 o'clock, where all three groups are 10%. In 5th o'clock among raped case 8%, while other two groups 10%. In third o'clock among raped cases 2%, while other two groups 10% as shown in figure 9.

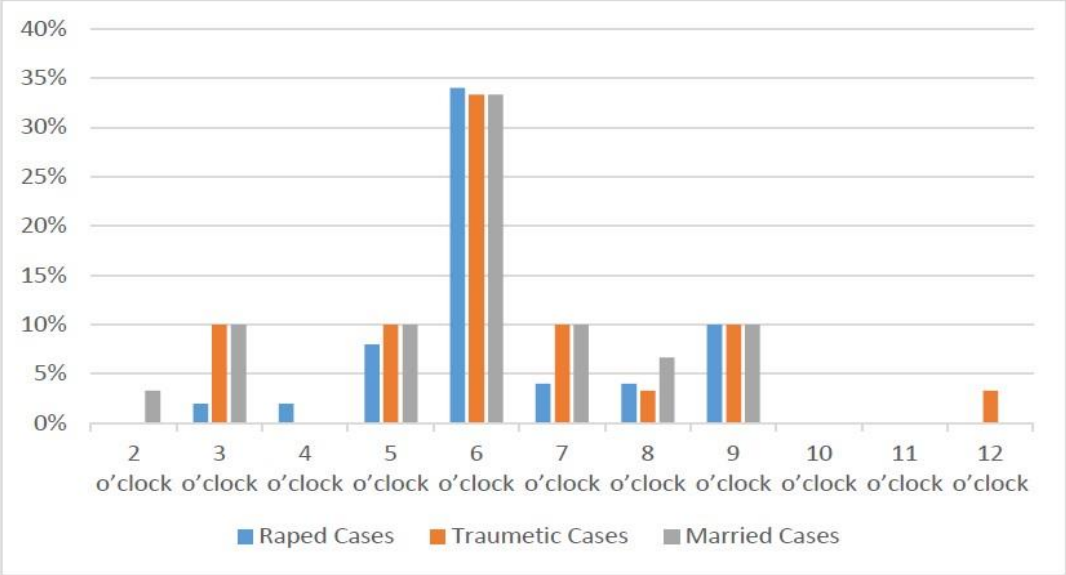

Figure 9: frequencies of the location of the tear in the hymen in all three groups.

Discussion

In the first classification of married cases, the average age is 22.7 years, with most children being children in stressful cases. Raped cases have an average age of 17.4 years, while traumatic cases have an average age of 8.83 years, and this finding was similar to that seen in a study conducted by[12] 329 cases (43%) were juveniles (aged 13 to 17 years), while 437 cases (57%) were male (17 years). Adolescents were more likely to be attacked by friends or family members (84 %vs 50 %, p \ 0.001.[3] The victims have an average age of 16.787.16 years (min: 3 years and max: 70 years).

Regarding loss of consciousness and trauma to the body, in raped cases, only a small percentage (18%) had a loss of consciousness and (12%)of raped cases had trauma to the body, while the use of force and weapon also small percentage (36%). Her consent did most of the cases in the raped group without any violence to her but regarded as (rape) because they are under 18 years old, this against the result of a study done by[12] of women presenting to an urban sexual assault clinic, 43% were had body trauma and while the weapons were used in both types of assaults but were more common in adults 26% is closely related to this study.

About sexual act (34%) of the raped cases only vaginal act, while 6% had an anal act, 58% had both anal and vaginal. In comparison, touch to external genitalia 2%, and this is the same with the result of a study done by[3] out of 324 victims, 139 with a history of vaginal and anal

penetration, 85 (26.3%) had genital injuries, and 54 (16.7%) had anal injuries. And another research was done by[13]; out of 796 victims, 76.6% had anal and vaginal penetration. About anal examination, 56% have dilatation of anal due to recurrent sexual act, 42% have a normal anal, and 2% had a tear in the perineum due to forceful anal intercourse or incompatible age between the victim and assailant and this same as.[12]

About the use of condom and lubricants, 16% is used, which is a small percentage in comparison with 84% not used condom and lubricants, the term (condom and lubricant) is important for pregnancy and sexually transmitted disease, and this result is close to a study done by and [14] only a small percentage 20% of raped cases had a history of using a condom.

Infection can not be noticeable right away, and genital inspection is a practice that the survivor may interpret as rape. Thus, until signs are already present, screening for sexually transmitted diseases by vaginal examination is postponed until 10 to 14 days after the incident. This service aims not to examine how the disease is transmitted but rather to determine its existence or absence.

Regarding the swab results, we get 14% is positive, 6% is a negative result, but significant percentage 66% there was the inadequate result, and this is not comparable with research done by[15] from 581 The vaginal swab test detected 91% of specimens containing semen. Positive swab means during examination in the lab the semen is present and interval time is less than 72 hours, while the negative mean there is no semen. It is not available means not valid because it is more than 72 hours, or using a condom, or removing by any object, and may be due to the occurrence of assault without any ejaculation.[16]

The observation of semen under the microscope is a more conclusive means of exploration. It is also possible to see the sperm cells using microscopic instruments, confirming their existence. However, the older a biological sample is, the more decomposition that has occurred; hence, new and well-preserved samples are favoured. The swab outcome is critical for confirming the abuse, intervening in pregnancy and sexually transmitted infections, and gathering evidence.

Regarding the tear duration, we have two terms old (more than two weeks) mean healing of the tear, while recent (less than two weeks) still there is redness and blood around the tear. The duration is necessary because in the rape case, detecting the event's time while in married and traumatic cases is important for giving the exact time of tear to the child's husband or parents. [16, 13]

About 62% of the raped cases, 10% of traumatic and 23.3% of married cases have old tears. About the new tear, 32% of the raped case, 70 traumatic and 60% of married have new tears, regarding the small percentage of old traumatic cases due to neglecting the case after the

accident. In contrast, for the married case, because of the low education about the hymen, they come to be sure about the intact of the hymen. This duration mainly focuses on our society, so any trial to find research to compare with our results gives no findings.

Regarding the tear location, six o'clock is the most common location according to the percentage (In the raped cases is 34%, traumatic cases 33%, and in married cases 33%). While the second most common location is 9 o'clock, and all of the three groups are 10%.[16]

One downside is that many victims of sexual harassment do not disclose their assaults. According to reports, less than half of rape victims reported the attack to police or requested medical attention. Since the evidence in this analysis is focused on individuals who presented for medical examination, it is possible that they are not fully generalizable to all juvenile or adult abuse cases. Our youth population may have a higher rate of sexual harassment-related incidents than the overall population of teens who do not report their assault.

Another limitation is the sample size, which is too small for a population like Erbil city. There are also no emergency departments; this leads to delays in receiving cases after the accidents. Most of the evidence will be lost as swab sample taking will be inefficient. Another limitation is the lack of the rape kit, which is necessary to confirm the evidence during each case's examination.

Conclusion

The current research, most of the raped cases are teenagers below eighteen years old; 87% of all cases had to lose virginity. In our locality, most of the raped cases are violated without the use of force or weapon, done mainly by her consensual and there is no anybody trauma, but regarding rape law, it is a crime of rape. Our findings revealed that 56% of all sodomy cases had dilatation of the anal. Most of the case, they don't use a condom because they have no education about hygiene and sexual transmitted disease. There will be loss of evidence in most cases, as there will be no benefit of taking swabs because of a delay receiving the cases, and a large percentage of the tears became old tear.

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