

ORIGINAL ARTICLE

Sexual Assault: A Descriptive Study of Victims Attending a Public Hospital in Ipoh

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ABSTRACT

Introduction: Sexual assault continues to be a significant issue globally. It has a profound effect on the physical and emotional wellbeing of the victims. **Methods:** This is a retrospective study based on data collected from the "One-Stop Crisis Centre" at Hospital Raja Permaisuri Bainun for the duration of 4 years from January 2011 to December 2014 aiming to highlight the pattern and prevalence of sexual assault in the city of Ipoh, Malaysia. **Results:** Ninety-six cases were reported with the age of the victims ranging from 4 to 63 years old. All the victims were female except for one. Forty-six of the victims were in the young adults category (19-30 years old) and six were above 30 years old. The mean (SD) age of the victims was 19.8 (7.9) years. Sixty-seven cases involved rape (69.8%) and 12 cases involved gang rape. Twelve cases were allegedly committed by relatives of the victim, 57 cases involved persons known to the victim and 27 cases (28.1%) were allegedly perpetrated by strangers. Most cases were reportedly committed at the victim's own house (n=32). **Conclusion:** This study highlights the salient fact that most perpetrators were known by the victim. Rape was the commonest type of sexual assault and most victims were between the age of 19-30. The comprehensive recommendations for prevention of sexual violence put forward by the United States Centers for Disease Control and Prevention should be implemented by all relevant parties.

Keywords: Sexual violence, Rape, Emergencies, Criminals

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INTRODUCTION

Violence is defined by the World Health Organization (WHO) as "the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation" (1). Violence among fellow human beings has always been part of the human experience since time immemorial. One important type of violence is sexual violence. Sexual violence is defined by the WHO as "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including

but not limited to home and work" (2).

Violence causes a lot of grief and pain to its sufferers. It has a significant impact on the physical and wellbeing of a person. Although violence is common, the incidence and the impact can be reduced by proper intervention. Studying and understanding the nature and magnitude of this problem will hopefully help us in providing better solutions to reduce the incidents of violence.

In Malaysia, the "One-Stop Crisis Centre" for battered women was first introduced in all Emergency and Trauma Departments of public hospitals in 1996 (3). It has been offering a coordinated multiagency response to all types of violence against women (and rarely men), in a way that allows victims of assault to address their medical, legal, psychological and social problems at one location (4).

A number of studies have been published between the year 2000 and 2012 with regards to sexual assault (5-11). Most of the studies conducted were retrospective except for the prospective study by Riggs et al (5) that

was conducted in Denver (Colorado, United States).

The study by Vertamatti et al demonstrated that patients who did not suffer extra-genital injury and those who did not inform the authorities were significantly more likely to present to care after 72 hours. Victims who knew the aggressor were shown to be more likely to access health care after 72 hours (11). In another Brazilian study by Blake et al, it was found that mental illness was twice more prevalent among the adult victims (12). Lal et al's study in Delhi, India revealed that most victims were not educated and came from the lower socioeconomic group (13).

The Swedish study conducted by Larsen et al showed that 75% of the victims had met the assailant before the assault episode and alcohol was involved in 60% of cases (14). This study also showed that women were more likely to report the incident when assaulted by a stranger and when they had a physical injury or anogenital lesion (14). A recent Egyptian study highlighted that 81.5% of the victims were not married (15).

To the best of our knowledge, only one retrospective study has been done in Malaysia in the past twenty years that was based on OSCC data which is the study by Islam et al (8). Other studies were questionnaire-based and were conducted in a school or other educational settings. The study by Islam et al had been conducted in a university hospital setting in Kelantan. About 95% of the population of Kelantan are Malays and therefore that study might not be a good representation of the Malaysian population. We believed that conducting the study in Ipoh might produce a result that represent the overall Malaysian population besides having a more recent data of the condition. Furthermore, Ipoh is a city with a representation of different races close to what is present in other major cities in Malaysia.

The main objective of this study was to highlight the nature, pattern, and prevalence of female sexual assault in the city of Ipoh, Malaysia over a period of 4 years from January 2011 to December 2014 based on data collected from the "One-Stop Crisis Centre" in Hospital Raja Permaisuri Bainun (HRPB). HRPB is the main tertiary hospital for the state of Perak and is the third largest government hospital in Malaysia (16).

MATERIALS AND METHODS

This is a retrospective record review of victims who attended the "One-Stop Crisis Centre" of the Emergency & Trauma Department, HRPB from January 2011 to December 2014 for alleged sexual violence. Hospital Raja Permaisuri Bainun (HRPB), which is located in Ipoh is the main hospital in the state of Perak, Malaysia. Perak is one of the most populous states in Malaysia with a total population of 2.5 million (17). Ipoh covers an area of 643 square kilometres with an estimated population

of 704,572 in the year 2010 (18).

After ethical approval from the Medical Research Ethics Committee (MREC), basic information of the cases were collected from the "One-Stop Crisis Centre" (OSCC) records. The details of the cases were then obtained using case notes from the medical records department. Medico-legal cases that were not sexually related were excluded from the data collection. Data collected included the age, gender, ethnicity, occupation, type of abuse, type of hymen injury, relationship between perpetrator and victim, place of crime occurrence and time between sexual offence occurrence and the time victim presented to the OSCC.

The data analysis was performed using IBM SPSS Statistics for Windows version 22 (Version 22.0; Armonk, NY, USA), and R software (Version 3.3.2; R Foundation for Statistical Computing, Vienna, Austria) using the R Studio environment [RStudio Team, 2016]. The associations between the variables were tested using Fisher's exact tests.

RESULTS

Ninety-six cases were included in the study. None were excluded. For this study, the age of the victims ranged from 4 to 63 years old. Nine, 9 individuals were from the children category (below 12 years old). Thirty-five were from the adolescents category of being between 12 to 18 years oldf age. Forty-six of the victims were in the young adults category (19-30 years old) and six were above 30 years old (adults category). The mean (SD) age of the victims was 19.8 (7.9) years and the median was 19 years (inter-quartile range 15-23). Except for one male victim, all the victims were female.

The majority of the victims were Malay (Table I). The students and the employed categories share the majority of the cases. Five of the victims (5.2%) were children aged 6 and below.

Sixty-seven cases involved rape (69.8%), 12 cases involved gang rape, 2 cases involved sodomy and 4 cases were categorized as involving both rape and sodomy (Table II). Twelve cases were allegedly committed by relatives of the victim, 57 cases involved persons known to the victim and 27 cases (28.1%) were allegedly perpetrated by strangers. Most cases were reportedly committed at the victim's own house (n=32). This was followed by the offender's house (n=23) and the rest were at various other locations (Table I). The 'others' category included vacant houses, bushes, farms, toilets and hotels.

In terms of the time between the alleged sexual assault and the time that the victim presented to the OSCC, 49 victims came within the first 120 hours and 40 individuals came after 120 hours of the alleged act. 70

Table I: Socio-demographic attributes and clinical characteristics of the victims

	n = 96	(%)
Gender		
Female	95	99
Male	1	1
Age		
0-11 years	9	9.4
12-18 years	35	36.5
19-30 years	46	47.9
30+ years	6	6.2
Ethnicity		
Malay	63	65.6
Chinese	11	11.5
Indian	13	13.5
Others	9	9.4
Occupation		
Children aged 6 and below	5	5.2
Student	38	39.6
Employed	38	39.6
Unemployed (including housewives)	15	15.6
Place of crime		
Victim's own house	32	33.3
Offender's house	23	23.9
Bushes	10	10.4
Vacant house	5	5.2
Hotel	8	8.3
Others	14	14.6
Unsure	4	4.2
Time interval before presentation		
0 - 5 days	49	51.0
> 5 days	40	41.6
No data	7	7.2
Type of perineal tear		
	n = 96	(%)
Intact vagina	8	8.3
Fresh vaginal tear	16	16.7
Old vaginal tear	70	72.9
Anal tear	2	2.1

victims had an old vaginal tear, 16 had fresh vaginal tears, 8 had intact vagina and 2 persons presented to the OSCC with anal tear (Table I).

Our bivariate analyses demonstrated that the type of offence, place of crime and relationship between the perpetrator and the victim were significantly associated with the age of the victim (Table II). Similarly an association was found between the place of alleged crime and type of offence with the victim-perpetrator relationship (Table III).

Table II: Age-stratified characteristics of the victims of sexual assaults

Age stratification	0-11 years, n (%)	12-18 years, n (%)	19-30 years, n (%)	30+ years, n (%)	Total, n (%)	P-value*
Ethnicity						
Malay	9 (14.3)	23 (36.5)	29 (46)	2 (3.2)	63 (65.6)	
Chinese	0	7 (63.6)	3 (27.3)	1 (9.1)	11 (11.5)	0.085
Indian	0	4 (30.8)	7 (53.8)	2 (15.4)	13 (13.5)	
Others	0	1 (11.1)	7 (77.8)	1 (11.1)	9 (9.4)	
Type of offence						
Rape	3 (4.5)	23 (34.3)	37 (55.2)	4 (6)	67 (69.8)	
Gang Rape	0	6 (50)	5 (41.7)	1 (8.3)	12 (12.5)	0.005
Sodomy	0	1 (50)	1 (50)	0	2 (2.1)	
Both (Rape & Sodomy)	0	2 (2.1)	2 (2.1)	0	4 (4.2)	
Molestation	6 (54.5)	3 (27.3)	1 (9.1)	1 (9.1)	11 (11.5)	
Relationship						
Relatives	4 (33.3)	5 (41.7)	2 (16.7)	1 (8.3)	12 (12.5)	
Known to the victim	2 (2.1)	24 (25.0)	30 (31.2)	1 (1.0)	57 (59.4)	0.003
Stranger	3 (3.1)	6 (6.3)	14 (14.6)	4 (4.2)	27 (28.1)	
Place of crime						
Victim's own house	7 (21.9)	11 (34.4)	10 (31.3)	4 (12.5)	32 (33.3)	
Offender's house	0	12 (52.2)	11 (47.8)	0	23 (24.0)	0.010
Others^	2 (5.4)	9 (24.3)	24 (64.9)	2 (5.4)	37 (38.5)	
Unsure	0	3 (75)	1 (25)	0	4 (4.2)	

*Fisher's exact test

^For the statistical analysis, vacant house, bushes, hotel etc. in Table I have been combined in Tables II and III

Table III: Characteristics of the victims of sexual assaults stratified according to the victim-perpetrator relationship

Victim-perpetrator relationship.	Relatives, n (%)	Known to the victim, n (%)	Stranger, n (%)	Total, n (%)	P-value*
Ethnicity					
Malay	11 (17.5)	37 (58.7)	15 (23.8)	63 (65.6)	
Chinese	0	7 (63.6)	4 (36.4)	11 (11.5)	0.602
Indian	1 (7.7)	7 (53.8)	5 (38.5)	13 (13.5)	
Others	0	6 (66.7)	3 (33.3)	9 (9.4)	
Type of offence					
Rape	7 (10.4)	45 (67.2)	15 (22.4)	67 (69.8)	
Gang Rape	0	6 (50)	6 (50)	12 (12.5)	0.003
Sodomy	1 (50)	1 (50)	0	2 (2.1)	
Both (Rape & Sodomy)	1 (25)	2 (50)	1 (25)	4 (4.2)	
Molestation	3 (27.3)	3 (27.3)	5 (45.5)	11 (11.5)	
Place of crime					
Victim's own house	12 (37.5)	13 (40.6)	7 (21.9)	32 (33.3)	
Offender's house	0	21 (91.3)	2 (8.7)	23 (24.0)	<0.001
Others	0	23 (62.2)	14 (37.8)	37 (38.5)	
Unsure	0	0	4 (100)	4 (4.2)	

*Fisher's exact test

DISCUSSION

A total of 96 alleged sexual assaults were reported from January 2011 to December 2014 at the One Stop Crisis Centre (OSCC) of the Emergency & Trauma Department, Hospital Raja Permaisuri Bainun (HRPB).

The age of the victims in this study ranged from 4 to 63 years old. The average age was 19.8 ± 7.84 years (mean \pm standard deviation) and the median was 19 years (inter-quartile range 15-23). The Egyptian, Taiwanese and Danish study had a range of 3 to 49 years, 4 to 40 years and 12 to 93 years respectively (9,14,15). The Portuguese had a more extreme age range from 93 days to 86 years old (7). The mean age for the Egyptian, French, Portuguese and Taiwanese studies were 15.2, 15.9, 17.5 and 17.9 years respectively (6,7,9,15).

Out of the total 96 cases only one person was a male (1%) and the rest were female. This is very close to the study in Kelantan, Malaysia that recorded 100% females (n=439) cases (8). In the Taiwanese and Portuguese studies, 93.9% (n=107) and 91.7% (n=323) of the victims were females respectively (5,9). The French study showed a much higher percentage of male victims at 14% (53/382) compared to the other studies (6). There is high probability that the number of male cases were underreported in Kelantan (8) and elsewhere due to societal taboos.

The majority of cases in this Ipoh study involved young adults between the age of 19 to 30 years old with 47 cases (49.0%). This was followed by the adolescent category aged between 12 to 18 years with 34 cases (35.4%). There were 9 and 6 cases respectively for the below 12 and above 30 years categories. This is slightly different from the Egyptian study where they found that 58.5 % of cases (n=79) involved the adolescents and not the young adults (15). In the Egyptian study, the young adults and child categories had 27 (20.8%) and 26 cases respectively while only one case involved the above 30 years category. We were unable to compare our results with the findings of other studies as they all used different ways of age categorizations (5-15).

Most of the rape victims in this study aged between 19 to 30 years old (55.2%) whereas molestation involved children below 12 years old (54.5%). Majority of the sexual assault victims were Malays with a total number of 63 (65.6%) followed by 13 cases (13.5%) for Indians and 11 cases (11.5%) for Chinese. The findings do not reflect the population ratio in Ipoh as the Chinese population slightly exceeds the population of Malays in Ipoh. We were unable to compare this result with the previous study done in Kelantan, Malaysia (8) as the population of victims in the other study was 100 per cent Malays.

It is interesting to note that there were nine cases of child sexual assault involving the Malay race and none were reported among the other races (Table II). Most of the Malay (46%) and Indian (53.8%) victims came from the 19-30 years category whereas the majority for the Chinese (63.6%) was the 12-18 years category. The association between age group and race was however not statistically significant.

The cases of sexual assault among the Chinese may be underreported. According to one paper, family shame and insensitivity of health professionals were among the reasons for underreporting of sexual abuse cases among the Chinese living in Hong Kong (19). Another Hong Kong study mentioned that the lack of trust in the outcomes of making a report as a reason for not doing so (20).

As most police officers are Malay and due to the very limited number of Chinese police officers present in Malaysian police stations, this may explain why the Malays are more comfortable to make a police report when it comes to reporting sexual violence whereas communication barriers may hinder the Chinese victims and their families from making a report (21).

In the majority of cases (59.4%), the perpetrator was known to the victim but not a relative of the victim. Strangers were the second highest at 28.1 % (27 cases) followed by relatives at 12.5% (12 cases). Relatives include father, brother, uncle, cousin, stepson and stepfather. This is similar to the findings of the other Malaysian study in Kelantan, the Indian, the Danish and the Portuguese study where they found that the perpetrator was known to the victim in 61.3%, 64%, 44% and 56% of the cases respectively (6, 7, 13, 14). However, in the Kelantan and Portuguese studies, a higher proportion of cases were allegedly committed by relatives at 26% and 29.3% respectively and offences committed by strangers were less than 15%. The findings in the Egyptian study was totally different with 52.3% of the cases were committed by strangers and 30.8% by known perpetrators who were not related to the victims (15).

The highest number of sexual assaults involving relatives came from the 12-18 years old category (41.7%). On the other hand, cases involving assailants known to the victim and strangers had the highest number of victims from the 19-30 years category at 31.2% (n=30) and 14.6% (n=14) respectively. The association between the age group and the relationship between the perpetrator and the victim was found to be statistically significant. The perpetrator was 'known to the victim' is a common finding in all ethnic groups (Table III). Interestingly, no relatives were involved as the perpetrator among the Chinese. The association between ethnicity and

the victim-perpetrator relationship was however not statistically significant.

In this study, the majority (38.5%) of the alleged sexual assault occurred at places other than the victims' or offenders' house (Table I). 33.3 % (n=32) of the cases allegedly occurred at the victim's own house (Table I). Twenty four per cent of the alleged cases were reported to occur at the offender's house. Our study revealed that the majority of assault cases that allegedly occurred at the victim's own house (21.9%) and the offender's house (52.2%) were involving the 12-18 years category (Table II). With regards to the place of crime, most cases involved assailants known to the victim when the place of alleged crime was the victim's own house, the offender's house and the other places category. This association was highly statistically significant (Table III). The study in Kelantan showed a similar pattern, as the majority (52.9%) of cases happened in neither the victim's nor the assailant's house. These data is very different from the Egyptian and French study. The Egyptian (15) study showed that most cases (50.8%) occurred at the offender's house whereas the study in the western suburb of Paris demonstrated that the highest proportion of cases was at the victim's house (6). The most common type of assault was rape at 69.8 % followed by gang rape and molestation at 12.5 % and 7.3% respectively. This study showed that most of the rape assailants were known to the victims (67.2%) while most molesters (45.5%) were strangers to the victim (Table III). The association between the type of offence and the relationship between the perpetrator and the victim was statistically significant.

It is not known as to how many cases of sexual assault have not been reported for every reported case that presents to the OSCC. This study lacks information on drug/alcohol intake of the victims, presence of physical injuries, presence of resistance, history of mental health issues and history of former assault /abuse. Even though the data on whether high vaginal swabs were taken or not for the victims was present, unfortunately we did not have access to the data on whether there was presence or absence of spermatozoa from the swab which may become a positive proof of sexual contact. In the future, a prospective multi-center study should probably be employed with better data gathering techniques to better define the nature of sexual abuse in the country.

Victims of sexual abuse were reported to have lower levels of self-evaluated health, higher levels of drinking alcohol, smoking, engaging in sexual intercourse and a significantly increased risk of contracting sexually transmitted diseases (21). They also tend to suffer from some form of anxiety disorder or trauma besides having diminished self-esteem, disempowerment, fear for personal safety and a heightened sense of vulnerability to revictimization. Sexual abuse survivors may suffer from impairment of the ability to live effectively, higher levels of depression, suicidal thinking and planning of

suicide (21).

Sexual violence is something that is complex and requires a comprehensive approach. The United States Centers for Disease Control and Prevention (CDC) in 2016 have put forward strategies for the prevention of sexual violence at individual, relationship, community and society level (28). Among the notable recommendations put forward by the committee were to mobilize men and boys as allies of the victims, teaching healthy, safe intimate relationships to adolescents, strengthening economic supports for women and families, improving safety and monitoring in schools and addressing community-level risks through environmental approaches.

A number of papers based on studies conducted overseas have shown that alcohol and drug consumption are important risks factors for being sexually assaulted (10) (21)(22)(23)(24)(25). Unfortunately, we did not have the information on the consumption of these among the victims of this study. Nevertheless, avoiding drugs and alcohol consumption in situations where a woman's safety maybe compromised should be stressed in campaigns to prevent sexual violence.

Information should be propagated in educational institutions to increase awareness on sexual assault and of situations in which it might occur (27). Training on how to defuse a risky situation or deter a sexual assault should be taught to young girls from primary school. Social media should be employed to challenge prevailing views of victims and perpetrators (27). Policies that limit the availability of alcohol should be instituted to reduce the usage by vulnerable members of the society (27). Group discussions, educational campaigns, rallies and workshops in schools, prisons and workplaces should be held by both men and women to create awareness in combating sexual violence (21).

The authors highly recommend implementing the approaches recommended by the US CDC as the number of reported sexual harassment cases continue to increase generally despite the overall reduction in reported cases of rape and molestation in Malaysia (29).

CONCLUSION

This study highlights the salient fact that most victims of sexual crimes are between the age of 19-30 and rape was the commonest type of sexual assault. As this study was done in a single centre within a short duration with the possibility of unreported cases, the findings could not be generalized. Awareness needs to be raised among the public and healthcare professionals on the fact that most sexual assaults are perpetrated by someone known to the victim, usually in familiar surroundings. The comprehensive recommendations for prevention of sexual violence put forward by the United States Centers for Disease Control and Prevention

that involved strategies at individual, relationship, community and society level should be pushed forward and implemented as much as possible at all levels by relevant parties (28).

ACKNOWLEDGEMENTS

The authors would like to thank the doctors and support staff at the Emergency & Trauma Department, HRPB for their assistance in completing this work.

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