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Analysis of Sexually Assault Patients Presenting at a Secondary Hospital, South Africa

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Abstract

Sexual assault and rape remain a huge problem in South Africa. However, only a few studies have investigated the association of demographic features and characteristics of sexual assault on the victims. The prevalence of rape in women globally is 7.2%, and in Sub-Saharan Africa 3 (21%). The objective was to determine the sexual assault characteristics and the relationship between the sexual assault characteristics and the socio-demographics of patients who presented for counselling. A retrospective, cross-sectional study was undertaken by reviewing 501 patient files who presented to a secondary-level hospital. A data capture sheet was used to collect information. The analysis included descriptive statistics and Chi-square test. The mean age was 21.5 ± 12.3 years. The women that presented to the hospital were black (92.4%), single (95.4%), unemployed (83.8%), and had a school education (27.6%). Only 4% of the participants were males. Fifty-eight percent of the participants reported that sexual assault had taken place between a Friday and a Sunday, between 18.00 to 05.59 hours. Women older than 20 years were three times more susceptible to sexual assault at night (p = 0.00). Young women were sexually assaulted more frequently at the perpetrator's place (p = 0.01), and at party venues or in cars (p = 0.01). Health workers play a big role through preventive, educative, and curative measures. Health talks in educational institutes and public areas should be enforced. Safety and security officials should consider the identified risk factors for sexual assault and targeted interventions.

Keywords: *Crisis centre, Level two hospital, Sexual assault, Secondary hospital.*

Introduction

Sexual assault or rape is a big public health problem worldwide, but only in the recent past have they received the attention and prominence they deserve. Sexual assault and rape are categorised by the World Health Organisation (WHO) as a form of inter-personal violence, and it damages the physical, sexual, emotional, mental, and social well-being of individuals and families [1]. Different countries have different legal definitions for rape, and in South Africa, rape or sexual assault is defined as occurring when a person commits an unlawful, intentional act of sexual penetration without the consent of the complainant [2].

In South Africa, over 68,000 rape cases were reported to the South African Police Service (SAPS), which suggests that one rape occurred in South Africa every 35 seconds [3,4]. This raw figure shows the extent of the occurrence of this social scourge and proves that it should not be overlooked during the planning and execution of important health policies or projects.

Studies done internationally showed that these patients were usually females of less than 25 years of age [5], while findings in the South

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African context more specifically identified that women were at the highest risk of rape between the ages of 19 and 24 years [6]. A study done in Lagos showed an age range of 3-53 years, mean age of 21.2 ± 8.8 years [7], but Dhaka study [8] showed a mean age of 17.5 ± 4.35 years. There is the paucity of studies between demographic features and sexual assault characteristics.

The objective of the study was to describe the socio-demographics of clients to determine the sexual assault characteristics and the relationship between sexual assault characteristics & socio-demographics of clients who presented for counselling.

Methodology

It was a hospital-based retrospective review of the medical files of patients who presented at the Crisis Centre. Leratong Hospital is a Level 2 or secondary public hospital located in Westrand district, South Africa. Most of the sexual assault cases of westrand district are seen at Leratong Hospital Crisis Centre, a fully functional unit with a doctor on duty 24 hours of every day, in addition to lay counsellors and nurse clinicians.

Seven hundred and fifty-five new cases were reported at the Crisis Centre during the year of 2014. Five hundred and one files were used for the study after using the exclusion criteria. The exclusion criteria were files with completely illegible handwriting, files with 50% uncompleted data and files that were opened for suspicion of sexual abuse.

The data capture sheet was developed from a tool used by lay counsellors in Leratong Hospital and key findings from the literature. It collected the socio-demographic information and the characteristics of the sexual assault incident.

The researcher worked in the Crisis Centre while collecting data from the records. The Crisis Centre has its own independent filing room and system, and the Records keeper assisted with the retrieval of the medical records for the one-year period of the study. The researcher then reviewed all these files and included only those that met the study criteria. Each medical record audited was given a code number and sticker to avoid auditing duplication of any file selected for the study. The completed data capture sheet was then stored in the researcher's home in a locked cabinet. The collected data was subsequently transferred to a computer where it was password-protected, confirming that only the researcher had access to the information and thus guaranteeing the confidentiality of the medical record.

Data from the data capture sheets was put onto MS-Excel Spread Sheets and subsequently transferred to and analysed by STATA 12. Categorical variables were presented as frequencies, percentages, and continuous variables were presented as mean, standard deviation, and range. Associations between socio-demographic and sexual assault features were determined using chi^2 and logistic regression. Statistical significance used in this study was set at p-value of 0.05 with CI of 95%. Permission to conduct this research was sought from the Director of West Rand Health District, the CEO of Leratong Hospital, the National Health Research Database (NHRD), Gauteng and the Human Research Ethics Committee (HREC) of the University of the Witwatersrand(M160214). Since it was a retrospective descriptive review of patients' medical records, there was no need to obtain consent from the patients. To maintain confidentiality, the information on each completed data capture sheet was made anonymous, and the computed data was password protected by the researcher.

Result

The mean age of the participants was 21.5 ± 12.3 years. The lowest age was 2 yrs. While the highest age was 72 yrs. Most of the participants were female (96%, n=481) and black African. (Table 1).

Table 1. Sociodemographic Characteristics of the Participants

Age (years)	**N (%)**
0-10	74(14.8%)
11-20	211(42.1%)
21+	216(43.1%)
Gender	
Females	481(96%)
Males	(4%)
Employment status	
Unemployed	420(84%)
Employed	21(16%)
Marital Status	
Single	472(94.2%)
Married	24(4.8%)
Divorced	4(0.8%)
widow	1(0.2%)
Education	
None	2(0.4%)
Pre-school	17(3.3%)
Primary	35(7.0%)
Secondary	98(19.6%)
Post-matric	5(1.00%)
Not specified	344(68.7%)

One can see that weekends have the highest incidence with Thursday been the lowest incidence of sexual assaults in open fields and perpetrators place. Nights is the time for these assaults to happen and mornings have less frequent incidence. About 2/3 of the clients reported to the hospital within 24 hours after the sexual act (Table 2).

Table 2. Time, Day, Place, Perpetrator Strategy, Type of Weapon Used, and Number of Perpetrators

Items	**N**	**%**
Day of the week when the sexual assault took		
Sunday	105	21
Monday	47	9
Tuesday	41	8
Wednesday	45	9
Thursday	38	8
Friday	71	14
Saturday	114	23
Not specified	40	8
Time of sexual assault		
00h00-05h59	143	29
06h00-11h59	45	9
12h00-17h59	68	14
18h00-23h59	144	29

Time not specified	101	19
Time taken before seeking for help		
Within 24 hours	312	62
Between 24-48 hours	64	13
Between 48- 72 hours	33	7
Between 3-7days	45	9
Between 7days to 1 month	11	2
More than 1 month	14	3
Unknown	22	4
Place where the sexual assault took place		
Open field	175	35
Perpetrator's place	165	33
Victim's place	97	19
Other- (inside a car, inside an uncompleted/abandoned building/shack, detention facility or at a party venue)	53	11
School	6	1
Near tavern/shop	5	1
Perpetrator strategy during the sexual assault		
Physical force	252	50
Threat to kill/harm	132	26
Cajoling	6	1
Deception	103	21
Drink spiking	8	2
Type of weapon used during the sexual assault (123)		
Knife	67	55
Gun	38	31
Other (Screwdrivers, beer bottle, sjambok)	18	15
Number of perpetrators that were involved in the sexual assault		
One	396	79
Two	58	12
Three	30	6
Four or more	17	3
To whom did the victim first speak after the sexual assault		
SAPS	236	47
Mother	95	19
Friend/teacher/pastor/colleague	66	13
Other family	61	12
Neighbour	21	4
Husband/boyfriend	14	3
Stranger	5	1
Health care worker	3	1

The sexual assaults took place at the perpetrator's place, during the night, by known perpetrator, but they were able to report to hospital within 24 hours.

Table 3. Logistical Regression

	Odd Ratio	P value	CI
Night	3	0.00	1.79-4.46
Reports to hospital within 24 hours	10	0.00	4.56-21.65
Reports to hospital within 48-72 hours	4	0.01	1.38-11.00
Threaten by a weapon	3	0.00	1.81-4.18
Threatened by death or bodily harm	2	0.00	1.40-2.37
Sustain non-genital injuries	4	0.00	2.48-7.06
Use of alcohol	3.4	0.00	2.20-5.12
Perpetrator's place	11	0.00	0.12-1.00
Knowledge of the perpetrator	31	0.00	0.21-0.45

Discussion

The mean age of 21.5 ± 12.3 years concurs with the Nigerian study [7] but is higher than a study done in Dhaka city, Bangladesh [8]**.** The average age of victims of sexual assault varied from place to place, and young adults are affected. The most common age group in the study was those younger than 20 years i.e., 0-20 years (56.9%, n=285). More specifically, age group 11 – 20 years (42.1%, n =211) was in stark contrast to the findings of the Dhaka city study where 70% of the participants fell into the age group of 11 – 20 years, with 11.3% for 21-30 years [8].The data on females concurs with other studies [7,9]. Although either gender can suffer from sexual assault, researchers from around the globe seemed to agree that females were more at risk [7, 9-11]. The unemployment rate was also higher than Honolulu study [9], which is a concern. The unexpectedly high incidence of sexual assault among single individuals included children and teenagers, which was much higher than in other studies [8, 9]. Secondary school students were more commonly sexually assaulted, which call for targeted health education in these individuals.

More than half of reported cases occurred around weekends from Fridays to Sundays, which concurred to other studies done in South African [4, 6]. More than half of the cases took place between 6pm and 6am, implying that these incidents were more likely to occur under cover of darkness. Again, this was in line with what had previously been reported in South Africa [6] but differed from the Nigerian study where sexual assaults were reported to occur slightly more frequently during daytime (53.6%) [7].

Clients older than 20 years were three times more susceptible to sexual assault during the night when compared to participants younger than 20 years (p =0.00), which concurs with a Nigerian study where participants older than 30 years were sexually assaulted at night (p =0.00) [7]. This finding concurs with a Nigerian study where teenagers or adolescents were 17 times more likely to be sexually assaulted during the day and non-teenagers at night (p <0.001) [12]. This suggested that the identified vulnerable populace should be educated accordingly, and preventive security measures should be more focused at night.

Two third of the clients reported to the hospital within 24 hours of the incident, which contradicts the findings of a Nigeria study [7], where only 35.5% of the victims presented within 24 hours. Clients older than 20 years were 10 times more likely to report within 24 hours of sexual assault (p =0.00) and were four times more likely to report within 48 to 72 hours (p= 0.01) when compared to those younger than 20 years. This finding suggested that clients younger than 20 years were only reporting sexual assault after 72 hours. Hence Post Exposure Prophylaxis (PEP) for STIs/HIV could then not be dispensed to them, in accordance

with current approaches to the management of sexual assault and rape [13]. This might be due to fear of stigma/not being believed by the parents or caregivers, or fear of threat made by the perpetrator. Therefore, it is imperative to target this group and educate them about seeking help immediately after sexual assault, to access adequate treatment/therapy and to prevent forensic evidence from being lost. This would also reduce the risk of contracting HIV/STI from the sexual assault.

Open fields were the most common site for sexual assault, followed by the perpetrator's place, which was in agreement with previous South African reports [4, 5], but differed from the Dhaka city study, where most sexual assaults took place at the victim's house (37%, 85/230), while the perpetrator's place was 11.7% of the total (27/230) [8].

Participants younger than 20 years were more likely to be sexually assaulted in the perpetrator's place (p= 0.01) and at areas categorised as "Others" (party venues/inside motor vehicles/detention facilities), (p= 0.01, CI. 0.10-1.00). Males were more often sexually assaulted than females in the areas called "Others" (party venues/vehicle/detention facilities) (p= 0.01). Africans, when compared to non-Africans, were generally more likely to be sexually assaulted in the perpetrator's place (35% vs. 11%), while non-African males were assaulted in detention facilities (26% vs. 9%), although this was not found to be statistically significant when logistic regression was used. This finding differed from that of the Honolulu study, where more males than females were more likely to be sexually assaulted in the victim's house (77% vs. 69%) [9]. Employed participants were more often sexually assaulted in open fields than the unemployed (53% vs. 31%), although this was also not statistically significant with logistic regression. These findings showed that an African person younger than 20 years was more likely to be sexually assaulted in the perpetrator's place, which was similar to the findings in one of the studies done in Lagos, where sexual assault of younger participants took place in neighbourhood homes [12].

Although the physical force was reported as the commonest strategy employed by the perpetrators to overcome the clients, threat of death or bodily harm was statistically significant with age, education, and employment. Participants older than 20 years were 2 times more likely to be threatened with death when compared to those younger than 20 years of age (p =0.00). Educated participants were 11 times more likely to be threatened with death or bodily harm when compared to uneducated ones (p =0.03, CI. 1.30-91.57). Employed participants were 2 times more likely to report being threatened with death or bodily harm when compared to the unemployed participants (p =0.00 CI.1.13-2.27). Usually, educated and employed people are more likely to resist sexual assault; this probably explains why perpetrators adopt threats of death or bodily harm to overcome this real or perceived resistance. The Honolulu study [9] showed that more females reported the use of physical force as a strategy by the perpetrator, and even though this was also the case in the current study, it was not found to be statistically significant (p =0.07). Therefore unemployed, uneducated females younger than 20 years of age should be aggressively targeted during awareness campaigns.

Twenty-five percent reported the use of weapons and the most common weapon used was a knife. Participants older than 20 years were three times more likely to report that they were threatened with a weapon during a sexual assault when compared to the younger participants (p =0.00). Guns were 3 times more, knives 2.4 times more, and other weapons 4.4 times more likely to be used during sexual assault on participants older than 20 years compared to younger ones. This finding was like that of the Honolulu study, where the older victims reported use of weapons (p <0.00) [9]. Females were more likely to report the use of weapons when compared to males (25% vs. 5%),

although this was not found statistically significant. The employed participants were 3 times more likely to report the use of weapons when compared to the unemployed (p =0.00, CI.1.53-4.16**).** The deception was more commonly used in under-aged clients, amounting to a raw figure of 103/179 amongst children who were 15 years old or younger.

Sixteen percent of the clients sustained non-genital injuries during the sexual assault, similar to the Dhaka city study (13%, 30/230) [8]. Although the physical force was the most common strategy used in the current study, the findings in terms of non-genital injuries was inconclusive. Participants older than 20 years were four times more likely to sustain non-genital injuries when compared to those younger than 20 years (p =0.00). Married participants were 4 times more likely to sustain non-genital injuries than single participants (p =0.00, CI. 1.51-8.69), while employed participants were 3 times more likely to sustain non-genital injuries than the unemployed (p =0.00, CI.1.42-4.32). Female victims reported non-genital injuries when compared to males in the Honolulu study (p <0.05) [9], but this was not significant in our study. Overall, the findings were small in terms of non-genital injuries, which suggested that most clients probably succumbed to sexual assault without much resistance.

Sixty percent of the study participants knew their perpetrator who was higher than the finding in the Dhaka city study (44%, 101/230) [8], but lower than that of the south-west Nigeria study (73.1%) [12]. Clients younger than 20 years knew the perpetrator when compared to those older than 20 years (p =0.00), which on par with the Nigeria Study [10]. Unemployed clients knew the perpetrator when compared to employed participants (p =0.01). More than half of the unemployed clients were younger than 20 years. Therefore, parents of adolescents and young children should be more aware of their responsibilities of protecting their wards from sexual assault by relatives and close friends.

Males knew the perpetrators when compared to females (p =0.01), as most of the males in this study came from juvenile detention facilities and were sexually assaulted by fellow inmates. This differed from the Honolulu study, where it was reported that males were sexually assaulted more often by relatives compared to females (38.4% vs. 22.2%) [9]. Possible reasons would be being unable to resist the perpetrator as the perpetrators were older people and were in detention for serious crimes. Even though there were relatively few males in this study, they are also sexual assault in our setting, and similar finding was seen in the Nigerian study [14]. Married participants were less likely to know the perpetrators when compared to unmarried participants (p = 0.00). It is therefore recommended that preventive and educational activities be carried out in the relevant detention homes and prisons.

There was only one perpetrator involved in seventy-nine percent (n=396) of the cases in the current study. This figure is comparable to the one reported in an Egyptian study, where one assailant was responsible in 80% of all cases [15]. Nine percent (n=47) reported that they had been assaulted by three or more assailants, which was like the Dhaka city study (5%) [8] and Nigeria study (1-9 perpetrators) [9]. Although most participants in the current study were sexually assaulted by one perpetrator, there was data on of gang rape, which means that further studies are needed to identify the possible causative factors for it, and to proffer solutions.

Twenty-five percent of the clients used alcohol before the sexual assault. Clients older than 20 years were 3.4 times more likely to have used alcohol before sexual assault than those younger than 20 years (p =0.00), which concurs to legal alcohol consumption age restriction in South Africa is 18 years and above. Studies have shown that the consumption of alcohol in a woman heightened her risk of been sexually assaulted [16]. Although there was no definitive time frame specified for the period before the sexual assault occurred, studies have stated that

approximately half of all sexual assault victims admitted that they had been drinking at the time of the sexual assault, and estimates were between 30% to 79% [17-20]. People should be advised that alcohol will make them vulnerable to sexual assault.

The clients were generally more likely to report sexual assault first to the police, followed by reporting to their mother, which concurred to Honolulu studies [9]. Participants older than 20 years were 13.6 times more likely to report to the SAPS/HCW than their mothers when compared to those younger than 20 years (p =0.00), and they were also 10 times more likely to report to their colleague, teacher, or friend than to their mothers (p =0.00). Married participants were three times more likely to speak to a neighbour or husband than their mothers when compared to unmarried people (p =0.04). Employed participants were three times more likely to speak to their husbands/boyfriend than their mother when compared to the unemployed (p =0.00). These results highlight the need to educate the general populace that irrespective of who they first report to after an incidence of sexual assault, there is always the need to go to the SAPS or to the hospital as soon as possible.

Some of the limitations are that the study design was a retrospective review of files, hence restricted by the loss of/unavailability of some important data in the participants' files, which affected some of the results. Future studies should be prospective to avoid the loss of such vital data. This was a hospital-based study, so the findings cannot be generalised to the larger population. Community-based research should be done to compare the findings with this hospital-based study.

Conclusion and Recommendations

There is a need for holistic evaluation and care for the sexual assault victims to minimize adverse health outcomes. The current findings could go a long way to plan preventive and curative measures for sexual assault in the district, as it is the first study on sexual assaults in Gauteng. Some of the recommendations are that policymakers and NGOs should have sexual assault prevention programmes targeted at young people, particularly around minors and adolescents. Regular in-service training on sexual assault and the utilization of management guidelines for district doctors, nurses and community health workers will assist in increasing public's awareness. Education programmes should be planned and implemented in detention facilities and schools, and safety/security officials, especially the police, should consider the risk factors for sexual assault identified in this study and use them to plan targeted interventions.

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Conflict of Interest

The authors have no conflict of interest in this work.

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