ORIGINAL RESEARCH ARTICLE

Utilisation of Medical Services and Outcomes at Adult Rape Clinic at Parirenyatwa Group of Hospitals, Zimbabwe

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Abstract

Sexual violence is a major public health problem due to the associated risk of acquiring sexually transmitted infections, behavioural disorders and risk of committing suicide. The Adult Rape Clinic (ARC) was established at Parirenyatwa Hospital, Harare in 2009 with the objective of providing medical and support services for survivors of sexual violence in a safe and private environment. The data collected had never been analysed since the establishment of the clinic. We described the clients' profile and the services offered at the clinic to identify gaps in service provision and areas of improvement. A retrospective record review of data was carried out from the ARC collected from February 2009 to December 2017. We analyzed 2343 affidavits that were available. Out of 2343 records analysed, (2190) 93.5% were female and 6.5 % (153) were male. The median age was 23years (Q1=21; Q3= 29) for males and 19 years (Q1= 17; Q2=25) for females. Among the clients, 2164 (92.4%) received a baseline HIV test, and 263 females and 6 males tested positive. From 2010 to 2017, six clients' seroconversion was recorded. Only 863(36.8%) clients presented within 3 days after the sexual assault. About 40% of male victims were assaulted by someone they knew and 27% were married. The study recommends further research on the determinants of late presentation after sexual assault. *(Afr J Reprod Health 2019; 23[4]: 99-107).*

Keywords: Sexual violence, HIV test, male

Résumé

La violence sexuelle est un problème de santé publique majeur en raison du risque associé de contracter des infections sexuellement transmissibles, des troubles du comportement et du risque de suicide. La Clinique du viol pour adultes (CVA) a été créée à l'hôpital Parirenyatwa de Harare en 2009 dans le but de fournir des services médicaux et de soutien aux victimes de violences sexuelles dans un environnement sûr et privé. Les données recueillies n'avaient jamais été analysées depuis la création de la clinique. Nous avons décrit le profil des clients et les services offerts à la clinique pour identifier les lacunes dans la prestation de services et les domaines à améliorer. Un examen rétrospectif des données a été effectué auprès de la CVA recueilli de février 2009 à décembre 2017. Nous avons analysé 2343 déclarations disponibles. Sur 2343 enregistrements analysés, (2190) 93, 5% étaient des femmes et 6,5% (153) étaient des hommes. L'âge médian était de 23 ans (Q1 = 21; Q3 = 29) pour les hommes et 19 ans (Q1 = 17; Q2 = 25) pour les femmes. Parmi les clients, 2164 (92,4%) ont reçu un test de base du VIH, et 263 femmes et 6 hommes ont été positifs. De 2010 à 2017, la séroconversion de six clients a été enregistrée. Seulement 863 clients (36,8%) se sont présentés dans les 3 jours suivant l'agression sexuelle. Environ 40% des victimes masculines ont été agressées par une personne qu'elles connaissaient et 27% étaient mariées. L'étude recommande de poursuivre les recherches sur les déterminants de la présentation tardive après une agression sexuelle. *(Afr J Reprod Health 2019; 23[4]:99-107).*

Mots-clés: Violence sexuelle, test VIH, homme

Introduction

World Health Organization (WHO) defines sexual violence 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'[1]. Sexual violence occurs in all societies and across social classes with women disproportionately affected[2]. Perpetrators are mostly men and known to the victim[2]. There is under-reporting of sexual violence in general but more so for male sexual violence because of the shame, guilt and embarrassment[3].

Globally, 35.6% of women have experienced either physical and sexual intimate partner violence or non-partner sexual violence in their lifetime, and 45.6% of the cases occur in Africa[4]. According to the Zimbabwe Demographic Health Survey (ZDHS) 2015, 14% of women aged 15-49 years have reported experiencing sexual violence at some point in their lifetime, and among these women, 55% reported the perpetrator as their current husband or partner[5].

Sexual violence in males is a sensitive issue and often not reported because they often feel ashamed, embarrassed, disempowered and emasculated by the sexual assault [6]. In males, sexual violence is associated with being a perpetrator later in life and occurs in any setting, i.e. home, workplace, prisons and in conflicts such as war[7]. Worldwide, the lifetime prevalence of childhood sexual abuse in males is 7.6% [7]. A survey of males carried out in 24 countries showed that 3-17% had experienced sexual abuse before the age of 18[8]. In Zimbabwe 1 in 10 men experience sexual violence by the age of 18 however, there is limited data on male survivors which may infer an underestimation of the number of men affected[9].

In Zimbabwe when sexual violence occurs, an individual can report to Victim Friendly Unit (VFU), a department in the police that deals with sexual and physical violence. The victim is then referred to the hospital. At the hospital, a doctor or nurse sees the individual. The medical personnel will take a history of the event, examine the victim and then fills in a medical affidavit. The medical affidavit will later be presented as evidence in court if the perpetrator is prosecuted.

The Adult Rape Clinic (ARC) was established at Parirenyatwa Hospital, Harare in 2009 with the objective of providing medical and support services for survivors of sexual violence in a safe and private environment. Data on sexual violence are collected on specific sexual assault medical affidavits. The affidavits capture amongst other variables age, sex, date of the event, the number of times a client was assaulted, the number of perpetrators and the relationship of the victim to the perpetrator. The clients are offered HIV and pregnancy testing at presentation. Those found to be HIV negative and have presented within 3 days are offered post-exposure prophylaxis and if positives they are referred for ART services. Repeat HIV tests are done after three months and six months. Women who present within 3 days and test negative for pregnancy are offered emergency contraceptives, and the repeat pregnancy test is done after 6 weeks. Most clients are referred from the Victim Friendly Unit (VFU) and if requested, the clinic refers clients to the VFU. The data collected on the medical affidavit are captured in Microsoft Access.

The data collected had never been analysed since the establishment of the clinic. Sexual violence is a major public health problem due to the associated risk of acquiring a sexually transmitted infection, psychological disturbances, behavioural disorders and risk of committing suicide[10]. In this study, clients' profile and the services offered at the clinic are described to identify areas that can be improved, gaps in service provision and to inform policymakers on the impact of sexual violence in our communities.

Methods

Study type

This was a retrospective record review of data from Adult Rape Clinic recorded from February 2009 to December 2017.

Study setting

This study was carried out at ARC, which is located at Parirenyatwa Hospital in Harare, Zimbabwe. The clinic has no defined catchment area although most clients come from Harare. The clinic offers services to both female and male clients from 12 years. Services provided at the clinic include HIV and pregnancy testing, post-exposure prophylaxis, prophylactic antibiotics, counselling and completion of the medical affidavit as well as referral to other services such as police intervention. The staff at the clinic include nurses; Doctors training in Obstetrics and Gynaecology at the University of Zimbabwe with oversight from an experienced gynaecologist also provide medical cover.

Source of data

Data was obtained from ARC electronic database in Microsoft Access. Information from the paper-based medical affidavits are captured into this database. All the variables are captured into the data set as numerical codes.

Data management and analysis

The data was converted into Epi Info 7™ readable file from Microsoft Access, and then the variables that had been captured in Microsoft Access were translated from numerical codes to text. A total of 2343 affidavits were available. Epi Info 7™ was used to generate frequencies, means and proportions.

Variables analyzed

The variables analysed were age, sex, the number of times the victim was assaulted, HIV status (initial and follow up test), the time taken for the client to present to the clinic, pregnancy test, use of post-exposure prophylaxis, antibiotic prophylaxis and emergency contraceptives.

Results

A total of 2343 records were analysed, with the majority being female, 2190 (93.5%). Among the 153 male clients, 78(51%) were between 16-24year age group, 98(64%) were single and 42(27.5%) were married. The median age among male victims was 23years (Q1=21; Q3= 29). Among the female clients, 1261(57.6%) were between 16-24year age group, 28(1.3%) were <12 years, 1270(58%) were single, and 279(12.7%) were married. The median age for the female victims was 19 years (Q1= 17; Q2=25) (Table 1).

Seventy-seven (50.3%) male and 1871(85.4%) female clients reported having been assaulted by a single perpetrator. Among males, 89(58.2%) were assaulted by a stranger, 3(1.9%) by a boyfriend or male partner and seven (4.6%) could not tell whether they knew the perpetrator. Amongst female clients, 690 (31.5%) were assaulted by a stranger, 561 (25.6%) by a boyfriend and 54(2.5%) by their husbands. Fifty-eight (37.9%) male and 1135(51.8%) female clients were assaulted once. Those that did not know how many times they were assaulted were 53(34.6%) among males and 433(19.8%) females (Table 2).

HIV testing at ARC

Out of the 2343 client records analysed, 2164 (92.4%) received a baseline HIV test, and of those who were tested, 269(12.4%) were positive i.e. 263 females and 6 males. A follow-up HIV test was done in 1660(70.8%), and 221(19.1%) tested positive. From 2010 to 2017, six clients' seroconversion was recorded.

Of the 2343 client records analysed, 791 (36.1%) females and 72(47.1%) males presented between 1-3 days, 46(30.1%) males between 4-30days, 763(34.8%) females presented more than from the day of the sexual attack (Figure 1). Among the 269 clients (263 females and 6 males) who tested positive on the baseline HIV test done

Table 1: Sociodemographic characteristics of the clients at Adult Rape Clinic (ARC), Harare Zimbabwe (2009-2017)

Variable	**Category**	**Female Frequency (%)** n=2190	**Male Frequency (%)** n=153
Age group	≤12	28(1.3)	3(2.0)
	13-15	329(15.0)	6(3.9)
	16-24	1261(57.6)	78(51.0)
	25-34	413(18.9)	47(30.7)
	35-44	114(5.2)	13(8.5)
	≥45	45(2.1)	6(3.9)
Median age		Q_1=19(Q_2=17; Q_3=25)	Q_2=23(Q_1=21; Q_3=29)
Marital Status	≤12	28(1.3)	3(2.0)
	Child 13-15	328(15.0)	5(3.3)
	Single	1270(58.0)	98(64.0)
	Married	279(12.7)	42(27.5)
	Divorced/widowed	255(11.6)	3(2.0)
	Other (separated, cohabiting)	16(0.7)	0(0.0)
	Unknown	14(0.6)	2(1.3)

Table 2: The characteristics of the perpetrators (Data from Adult Rape Clinic, Parirenyatwa, Harare, 2009-2017)

Variable	**Category**	**Female Frequency n=2190**	**Male Frequency n=153**
Number of perpetrators	1	1871(85.4)	77(50.3)
	2-5	214(9.8)	48(31.4)
	6-10	6(0.3)	1(0.7)
	>10	5(0.2)	1(0.7)
	Unknown	94(4.3)	26(16.7)
Median		Q_2=1(Q_1=1: Q_3=1)	Q_2=2(Q_1=1: Q_3=4)
Relationship of perpetrator to victim	Stranger	690(31.5)	89(58.2)
	Acquaintance	575(26.3)	45(29.4)
	Boyfriend	561(25.6)	3(1.9)
	Husband	54(2.5)	0(0.0)
	Relative	227(10.4)	9(5.9)
	Unknown	83(3.7)	7(4.6)
Number of sexual attacks	1	1135(51.8)	58(37.9)
	2-5	567(25.9)	36(23.5)
	6-10	42(1.9)	5(3.3)
	>10	13(0.6)	1(0.7)
	Unknown	433(19.8)	53(34.6)

at presentation, 89(33.8%) females and 2(33.3%) presented within 3 days after the sexual attacks, 50 (19%) females between 4-30 days and 3 (50%) males more than 1 month. Most of the clients who tested positive on the baseline HIV test presented more than 3days after the sexual attack (Figure 2).

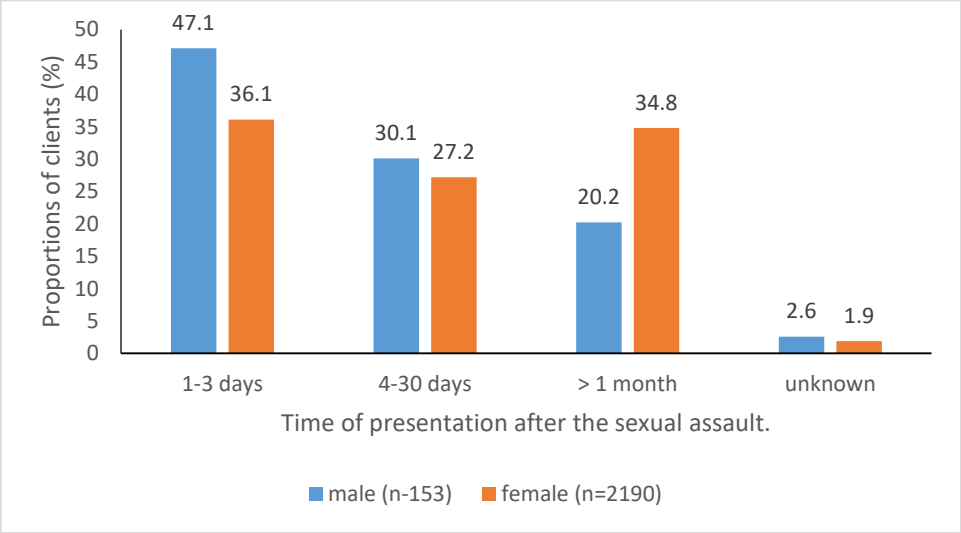

Figure 1: Time of presentation after the sexual assault at Adult Rape Clinic, Parirenyatwa, 2009-2017

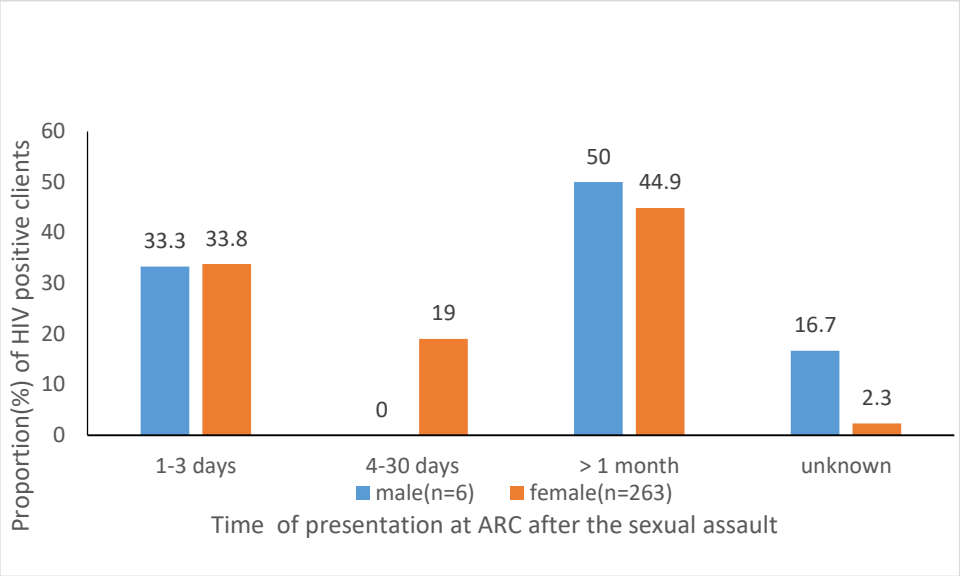

Figure 2: Initial HIV test result and time of presentation at Adult Rape Clinic after sexual assault, 2009-2017

Pregnancy testing at ARC

A total of 2014 (92%) women out of 2190 were tested for pregnancy at presentation at the clinic and 319 (15.8%) tested positive. Of the 319 women who tested positive for pregnancy 112(35.1%) presented within 3 days, 102(32.0%) presented between 4-30 days and 97(30.4%) presented more than a month after the sexual attack (Figure 3).

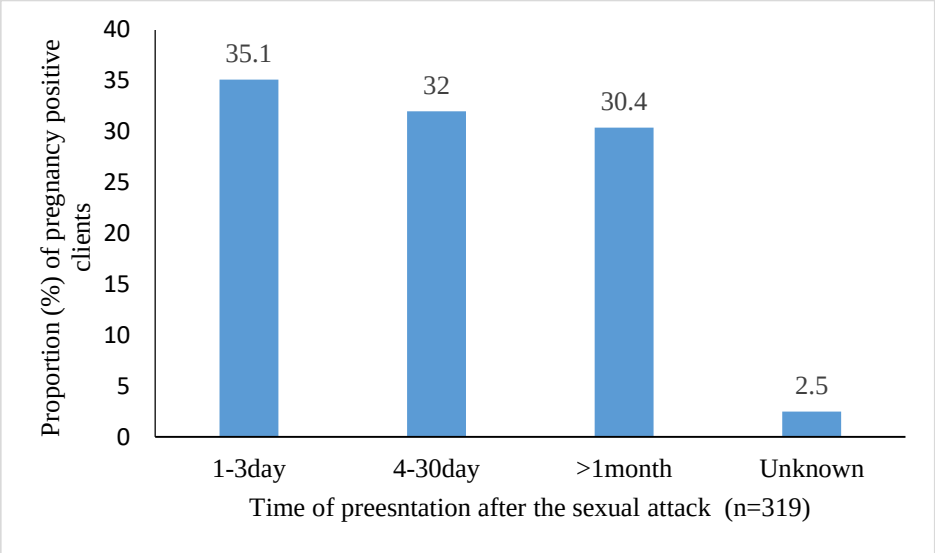

Figure 3: Pregnancy test results and time of presentation at clinic after assault, Adult Rape Clinic, 2009-2017

STI testing at ARC

Among the 2343 clients who were assessed, 434 (18.5%) presented with genital discharge, 51(2.2%) with genital sores, 45(1.9%) with genital warts and 35(1.5%) with pelvic inflammatory disease.

Prophylaxis given at ARC

Out of the 2343 client records analysed, 680(29%) received post-exposure prophylaxis (i.e. Tenofovir, Lamivudine and Atazanavir) and 1556 (66.4%) received antibiotic prophylaxis (e.g. metronidazole, amoxicillin, doxycycline). Among the 2190 female clients, 785 (35.8%) received emergency contraceptive pills.

Discussion

Our study showed that most of the clients who presented at ARC were female, single, between 16-24 years of age and were assaulted by someone known to them. It also showed that most of the clients presented at the clinic after 72 hours after the sexual assault and did not receive post-exposure prophylaxis or emergency contraceptives.

With respect to late presentation at ARC, similar findings were cited in the National AIDS Council 2016 annual report which stated that only 27% of clients who experience sexual abuse reported within 72 hours[11]. Tapesana *et al* also showed that only 30% of the sexual assault victims presented within 72 hours[12]. Studies have shown that the barriers to reporting sexual violence include embarrassment, shame, guilt and concerns about confidentiality[13]. Presenting within 72 hours of sexual assault is essential for clients to receive HIV post-exposure prophylaxis and emergency contraceptives to prevent HIV transmission and unwanted pregnancies[14]. In our study, clients presented after 72 hours hence did not receive emergency contraceptives and HIV prophylaxis because it was no longer beneficial. Similar findings were also reported by Desalegn *et al.* who showed most sexual victim clients present late and therefore the use of emergency contraception is low[15].

In our study, only 6.5% of the clients were male. Male victims have the same experiences of shame, guilt, fear and embarrassment as the female victims, however males are less likely to report

being raped because they may believe that it was an attack on their masculinity[16]. If the victim self-identifies as gay or bisexual, there are less likely to report rape as they will be afraid to disclose their sexual orientation[17]. In Zimbabwe, homosexuality is considered a crime and this deters gay, bisexual or transgender males to report sexual violence. Forty percent of male and about 64% of female victims were sexually assaulted by someone known to them such as relatives, boyfriends, neighbours and relatives' friends; however, the affidavits analysed did not capture the sex of the perpetrator. This correlates to other studies that showed most victims are sexually assault by someone known to them and this contributed to late presentation to the clinic[18–20]. Most males are sexually assaulted by men but other studies have shown that women were also perpetrators of rape contrary to the common belief that women are always the victims[17,21].

Victims of sexual violence are at risk of contracting HIV and sexually transmitted diseases due to associated genital trauma[22]. Studies in South Africa have shown that physical and sexual violence increases the risk of HIV directly through viral transmission or indirectly through the increased chance of risky sexual behaviour[23,24]. We found that among the clients who presented at ARC, about a tenth of the clients tested positive on baseline HIV screening between 2010 and 2017. However, among those that presented more than 72hrs, there was no clear evidence that the infection was a result of the sexual assault as the pre-assault HIV status was unknown. Among the clients who tested positive on the baseline test, almost a third presented at the clinic within three days. A positive HIV test result within three days of sexual assault implies they were already infected with HIV before the sexual assault or they were infected because of the rape but had experienced several incidences before seeking treatment. Women living with HIV are more likely to have experienced sexual violence. Violence creates an environment in which women cannot protect themselves from HIV and the genital trauma experienced in sexual abuse increases the risk of HIV infection[25,26]. Burgos-Soto *et al*. showed similar findings where the lifetime prevalence of sexual and physical assault was higher in HIV infected women than HIV negative women[27]. Those that presented more than 72 hours might have acquired the virus because of the rape or due to risky behaviours that occurred after the rape. Studies have shown that negative psychological effects of sexual abuse can result in risky sexual behaviours and the chances of drug abuse which increases the risk of contracting HIV[28–30].

We also found most of the clients presented with genital discharge. The most common sexually transmitted infections that presented as a discharge included *Neisseria gonorrhoea, Chlamydia trachomatis* and *Trichomonas vaginalis*[31]. In a study done in South Korea on sexual assault victims, the prevalence of *Chlamydia trachomatis* and *Neisseria gonorrhoea* was 28.9% [32]. However, according to Jenny *et al*., the risk of acquiring STI from rape was unknown as it is difficult to ascertain whether the infection was present before the assault or acquired during the assault[33]. In their study, they found that the prevalence of pre-existing STI was high. They examined 204 girls and women who presented within 72 hours, 43% of them had at least one sexually transmitted infection. Our study showed similar findings where some clients who experienced the sexual assault were already infected with sexually transmitted infections. The incubation periods for most organisms that cause discharge is more than three days, e.g., for *Trichomonas vaginalis*, the incubation period is between 5-28 days, and *Chlamydia trachomatis* is 5-7 days[34].

The study had some limitations. It was secondary data analysis and variables such as the place of residence and sex of the perpetrator were not captured in the dataset which could have helped to describe the characteristics of the perpetrator. There were also missing affidavits for

clients who presented at ARC which could help in showing the true picture. Despite these limitations, the study made a significant contribution to the literature about sexual violence in Zimbabwe which is generally limited.

Ethical Considerations

Permission to carry out the study was obtained from ARC, Parirenyatwa hospital and Health Studies Office. To maintain confidentiality no victims' names or other identifying information were used, and data were only used for this study.

Conclusion

Sexual violence is now a major public health issue. Knowledge of the characteristics of clients presenting for care after sexual assault and the services provided helps to identify gaps to improve patient care. The majority of the clients were single, presented after 72 hours hence did not get Post Exposure Prophylaxis or emergency contraceptives and were abused by someone known to them. Men were also sexually assaulted contrary to the belief that women are the only victims. The affidavits do not capture information on the sex of the perpetrator or the place of residence for the victims. Addition of variables such as the place of residence can help to determine areas most affected so that more time and resources can be allocated to community education in those areas. Further research is recommended to determine the factors associated with the late presentation and why men do not report sexual violence.

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