Crime Science

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Circumstances, policing, and attrition of multiple compared to single perpetrator rape cases within the South African criminal justice system

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Abstract

Background Research into the circumstances of rape, and criminal justice system responses, is pivotal to informing prevention and improving the likelihood of justice for victims. In this paper, we explore the differences in the circumstances of multiple-perpetrator rapes (MPRs) and single-perpetrator rapes (SPRs), their case management, and attrition, and describe areas for improvemensuplt around rape response within the South African criminal justice system.

Methods The sample comprised 3952 rape cases reported to the South African Police Services (SAPS) in 2012, selected through a multi-stage random sampling of 172 police stations from a total of 1164 police stations in the nine provinces, followed by the random selection of cases from each station's case list. Data were abstracted from police dockets, medico-legal examination forms, charge sheets, and trial transcripts. MPRs were defined as cases in which more than one perpetrator had sexual contact with the victim during a single incident, i.e., sexually assaulted or raped. Descriptive statistics and Chi-square tests for associations were used to compare MPRs and SPRs in circumstances of the rape, case management, and attrition.

Results Seventeen percent of cases were MPRs. MPRs were comparably more violent crimes with a higher frequency of aggressive tactics employed by perpetrators, for example, abductions, firearms use, and threats to kill. Overall, cases were often poorly handled by police, and there were deviations from standard policing and investigation procedures; we found more evidence of this with MPRs compared to SPRs. MPR cases were most likely to have been closed by police due to undetected perpetrators in combination with other victim reasons. The weaker investigations of MPRs were associated with higher attrition rates compared to SPRs, firstly at the police investigation and subsequent stages.

Conclusions The findings confirm differences in case management, patterns of attrition and trajectories of MPRs compared to SPRs. In an overall context of high rape case attrition and impunity for perpetrators, MPR victims are even less likely to see justice served than SPR victims. There needs to be much more effective supervision of rape case investigations by SAPS, particularly in MPR cases. Continual investigator training strengthened supervision and better resourcing are necessary to improve MPRs detection and convictions in adherence to the Directives for rape policing.

Keywords Rape, The criminal justice system, Policing, Attrition, Multiple perpetrators

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Background

Annual statistics from the South African Police Service's (SAPS) show that rape is highly prevalent in South Africa, and highly gendered, in that women and girl children constitute the majority of rape victims, while most rapes are perpetrated by men (Jewkes et al., 2010; Machisa et al., 2017; South African Police Services, 2018). Population based surveys in parts of South Africa have found that up to a third of men disclose having perpetrated rape, and close to a fifth disclose having done so repeatedly (Jewkes et al., 2010, 2011, 2012a, 2012b; Machisa et al., 2011). Surveys inquiring about the prevalence of multiple perpetrator rapes (MPRs), commonly referred to as streamlining or gang rapes in South Africa, have found that about one in ten (9%) men disclose having participated in MPRs and half (49%) of those so doing, disclosed having raped both their female partners as well as women with whom they were not romantically involved (Jewkes et al., 2015, 2011, 2012a).

There has been considerable research into the contextual drivers and circumstances of MPRs occurring in South Africa (Jewkes & Sikweyiya, 2013b). This has shown that MPR perpetrators are mostly younger than those in single perpetrator rapes (SPR) (Jewkes et al., 2015, 2012b). Indeed, perpetration of MPRs in South Africa very often occurs among teenagers and young adults at a time of exploration of gendered power and masculine identity (Jewkes & Sikweyiya, 2013b). MPRs are an extreme expression of male sexual entitlement, heterosexuality, gendered power over women and the act cements the bond among the male peer group (Bamford et al., 2016; da Silva et al., 2015; Jewkes & Sikweyiya, 2013b; Jewkes et al., 2016, 2015, 2012a, 2012b). The act of rape conveys a powerful message about the subordination and powerlessness of women victims, that is often further socially reproduced through stigmatization of those who have been raped (da Silva et al., 2015; Jewkes & Sikweyiya, 2013b; Jewkes et al., 2015, 2016).

The high occurrence of MPRs has also been associated with South Africa's historical structural inequality. This is expressed through widespread poverty, low educational attainment, very high youth unemployment, and responses to the structural context which include very frequent association of men in strongly bonded peer groups, that are socially marginalized and frequently engage in a range of violent and anti-social behaviour (Gibbs A et al., 2017; Gibbs et al., 2018; Jewkes & Abrahams, 2002; Jewkes et al., 2012a, 2012b; Seedat et al., 2009; Tharp et al., 2013). In this context, without job, education or access to formal recreational opportunities, young men may resort to raping, drug use and petty crime as entertainment (Jewkes & Sikweyiya, 2013b).

While much research has focused on describing the context, circumstances and drivers of MPRs in South Africa, less research has focused on evaluating the criminal justice response to reported MPRs at national scale in more recent years after the enactment of the current South African Criminal Law (Sexual Offences and Related Matters) Amendment Act 32 of 2007 (Republic of South Africa, 2007). Yet studies focused on determining the factors driving case attrition and outcomes are critical for assessing system-wide and departmental performance towards ensuring justice and gauging the degrees of impunity for rape perpetrators. Attrition studies are thus a starting point in identifying systemic failures which need addressing in order to improve rape case outcomes.

A large study of the attrition of rape cases in the criminal justice system after they were reported to the police, interrogated rapes reported in 2003 in Gauteng Province, South Africa's most populous province. This found that 16% of rapes reported were MPRs, 63% of the MPRs involved two perpetrators and 29% had three or four perpetrators (Jewkes & Sikweyiya, 2013b; Jewkes et al., 2012a, 2012b). This study, known as Tracking Justice, and several other studies, reported that most rape case attrition occurred at the police investigation and prosecutor enrolment stages, with most reported cases never put on a court roll or trial (Jewkes et al., 2009; Smythe, 2015; Vetten, 2008). Critically, MPRs and stranger perpetrator rapes were more likely to be closed as 'undetected' because the police failed to identify perpetrators (Artz & Smythe, 2007; Jewkes et al., 2009, 2012a, 2012b; Vetten, 2008). Overall, these studies reported poorer case management and outcomes of MPRs compared to SPRs (Jewkes & Sikweyiya, 2013b; Jewkes et al., 2012b).

Some of the studies have sought to understand the reasons for poorer case management and outcomes of MPRs at the attrition pinnacle of the police investigation stage. Scholars have suggested that the victim or multiple perpetrator characteristics and complexity in the circumstances of MPR incidents accentuate the challenges for investigators and may impact how they respond to, and manage, the cases (Jewkes & Sikweyiya, 2013b; Jewkes et al., 2012a, 2012b; Smythe, 2015; Watson, 2015). Additionally, poor police investigations of MPRs were influenced by poor attitudes towards victims, lack of resources required for effective investigations, limited training in handling the complexity in MPRs, staffing constraints and some police member's collusion in the non-arrests of MPR perpetrators (Jewkes & Sikweyiya, 2013b; Smythe, 2015; Watson, 2015).

Given that previous research was limited in its geographical scope, it has been important to understand the investigation and management of cases across the

country and whether this differs by characteristic of the rapes. We present an analysis of the first national study of rape case attrition and management in the criminal justice system of South Africa to describe the differences in the circumstances of MPRs and SPRs. We compare police case management, adherence to Directives, and the impact these have on patterns of MPRs vs SPRs case attrition, trajectories, and outcomes in the South African criminal justice system.

Methods

Study design and sampling

We used a multi-stage sampling to select a random sample of 172 police stations from a total of 1164 police stations in South Africa. At each police station, we randomly selected 30 rape cases from those reported from 1 January to 31 December 2012 (Machisa et al., 2017). Where the total number of cases for the year was less than 30, we included data concerning all rape cases (Machisa et al., 2017). The final sample was 3952 reported rape cases (Machisa et al., 2017).

Ethics

The study received ethical approval from the SAMRC Research Ethics Committee. Permission to access case files from the SAPS National and Provincial Commissioners and the National Prosecuting Authority (NPA) National Director of Public Prosecutions. The study only captured the anonymised Crime Administration System (CAS) numbers allocated to cases to protect the identities of victims and others involved.

Standards (Directives) for rape case investigation and management

The South African Criminal Law (Sexual Offences and Related Matters) Amendment Act 32 of 2007 prescribes National Directives for responding, and procedures for case management, within the health and criminal justice system (National Prosecuting Authority South Africa, 2014; Republic of South Africa, 2007; South African Police Services, 2008). Police members must conduct thorough investigations of every reported case appropriately, efficiently, and sensitively and obtain in-depth and timeous statements from victims, first reports, and witnesses (South African Police Services, 2008). They must take the victim to a health care centre for a medico-legal examination, ensure the safety of child victims, and keep the victim informed about the progress of the investigation (South African Police Services, 2008). Detectives assigned to cases must visit the crime scene, collect forensic evidence, compile a detailed statement of the crime scene, package the evidence while ensuring non-contamination, and timeously send it to the Forensic Science Laboratory (FSL) for analysis (South African Police Services, 2008). They must follow procedures to apprehend known suspects or trace unidentified suspects and while accused persons are in custody, detectives must obtain the accused person's warning statement and liaise with the prosecutor to commence pre-trial proceedings (South African Police Services, 2008).

Data collection and variables

Data were collected and abstracted from selected case files by trained research assistants. This included victim and perpetrator characteristics: age, race, occupation, relationship to each other; the circumstances of the rape, i.e., when and where it occurred; what the victim was doing at this time; how many perpetrators were involved; whether perpetrators used force, weapons, abducted or forcefully moved the victim to the place of rape or other location; and how the victim responded during the rape. MPRs were defined as cases in which more than one perpetrator had sexual contact with the victim in a single incident i.e. either sexually assaulted or raped. Captured data on case management included: when the case was reported; whether the victim and witness statements were taken; whether suspects were detected, arrested, or charged; whether the Sexual Assault Evidence Collection Kit (SAECKs) and crime scene DNA were collected and sent to the FSL for analysis and matching. The research assistants also captured case progression or attrition data from the reporting, police investigation, prosecutor case enrolment, trial stages, and case outcomes.

Data analysis

We analysed data using Stata version 15. To ensure the right point estimates and standard error, we adjusted the data for the multi-stage clustered (by province and police station) sampling design described above and created sampling weights. Further to this, all our analysis code had svy: command as a prefix. We used descriptive statistics and chi-square tests for associations to compare the proportion of SPRs and MPRs disaggregated by the victim or perpetrator characteristics, circumstances of rape, adherence to Directives and attrition at the police investigation, prosecutor enrolment, commencement of trial, and trial finalisation stages. We assessed the effect sizes of the different categories on the chi-square tests and directionality of the associations using Pearson residuals (P*r*) (Cornell Statistical Consulting Unit, 2020). We used Bonferroni tests as a post hoc analysis method for chi-square tests to correct for Type I Error by dividing the 0.05 p-value cut off by the number of tests performed and comparing the p-values to assess statistical significance.

Results

Seventeen percent of all cases were MPRs. The distribution of MPRs differed significantly across the nine provinces and by age. Table 1 shows that MPRs involved significantly lower proportions of under 11 victims (14.8% vs 19 SPRs). A higher proportion of MPR compared to SPR perpetrators were under the age of 18 years (24.6% vs 12.1% SPRs). A higher proportion of MPR compared to perpetrators were strangers (55.4% vs 27.9% SPRs) and lower proportions of MPRs involved intimate partner perpetrators (4.0% vs 15.9% SPRs). We found no significant differences in victim sex, race group, and reporting disability among MPRs compared to SPRs (p-values > 0.05).

Table 2 shows that the numbers of victims involved in MPRs and SPRs incidents were not statistically different. Most rapes occurred in residences (61.0%). However, there were significant differences in the location of MPRs and SPRs. More MPRs occurred in open spaces or derelict buildings (44.1% vs 24.9% SPRs). A lower proportion of MPRs compared to SPRs occurred in residences (38.2% vs 0.65.4% SPRs). More MPRs than SPRs occurred while victims were taking transport, travelling, or walking somewhere (7.9% vs. 2.0%). Higher proportions of MPRs compared to SPRs involved abductions or forceful movement of victims (46.8% vs. 32.3%), perpetrators displayed firearms (15.3% vs. 6.7%) victims were intoxicated (26.0% vs. 17.4%), victims did not resist (57.4% vs 47.2%) and perpetrators stole or took the victims' cellphones (29.6% vs. 8.4%). Although more MPR perpetrators threatened to kill victims than SPR perpetrators (38.0% vs. 33.2%) this was not statistically significant after conducting the Bonferroni correction. More MPRs compared to SPRs had witnesses to the incidents (28.2% vs. 23.3%) or colluders that never had sexual contact with victims (24.3% vs. 7.2%).

Table 3 shows comparisons of victim reporting and police adherence to investigative procedures in MPRs and SPRs. More MPRs than SPRs had missing details about the time taken before reporting (16.9% vs 13.4%

Table 1 Victim and perpetrator characteristics in MPRs and SPRs

	Chi Square test									
	SPR			MPR			Total			
	N	P*r*	%	N	P*r*	%	N	%	X^2	P-value for Chi-square test
Victim age group‡ (N = 43 missing)										
< = 11	621	1.11	19	96	− 2.38	14.8	717	18.3	70.8	< 0.001
12 to 17	889	0.79	27.3	155	− 1.73	23.9	1044	26.7		
18 +	1751	− 0.73	53.7	397	1.60	61.3	2148	55		
Victim sex (N = 45 missing)										
Male	182	0.34	5.6	32	− 0.75	4.9	214	5.5	42.8	0.498
Female	3075	0.21	94.4	618	− 0.47	95.1	3693	94.5		
Victim disability (N = 51 missing)										
No disability	3110	0.23	95.5	624	− 0.51	97.05	3734	95.7	73.1	0.07
One or more disability	148	0.81	4.5	19	− 1.78	2.95	167	4.3		
Victim race group ‡(N = 50 missing)										
Black African	2791	0.11	85.7	567	− 0.24	87.8	3358	86.06	57.2	< 0.001
Coloured	409	0.76	12.6	66	− 1.68	10.2	475	12.17		
White, Indian or Other	56	− 0.16	1.7	13	0.35	2	69	1.77		
Perpetrator age (N = 1475 missing)										
18 and above	1934	0.70	87.9	208	− 1.99	75.4	2142	86.5		
Under 18	267	− 1.78	12.1	68	5.03	24.6	335	13.5	32.8	< 0.001
Stranger rape (N = 13 missing)										
Perpetrators known to victim	2361	3.24	72.1	297	− 7.19	44.6	2658	67.5	191.3	< 0.001
Stranger perpetrator	912	− 4.67	27.9	369	10.36	55.4	1281	32.5		
Partner rape (N = 13 missing)										
Non-partner	2754	− 1.23	84.1	639	2.73	95.95	3393	86.1	64.7	< 0.001
(Ex) Partner	519	3.07	15.9	27	− 6.80	4.05	546	13.9		

Reference values for all binary exposures: Chi(1) = 3.84; ‡ Reference values: Chi(2) = 5.99

Table 2 Circumstances of MPRs and SPRs

	Chi Square test									
	SPR			MPR			Total			
	N	Pr	%	N	Pr	%	N	%	X2	P-value for Chi-square test
Number of victims (N = 55 missing)										
One victim	3019	0.53	92.9	586	− 1.16	90.7	3605	92.5	48.7	0.059
More than one victim involved	232	− 0.66	7.1	60	1.45	9.3	292	7.5		
Place of rape ‡ (N = 96 missing)										
Residence	2110	3.25	65.4	241	− 7.33	38.2	2351	61.0	204.2	< 0.001
Workplace settings	36	0.43	1.1	4	− 0.98	0.6	40	1.0		
Public areas/spaces—taxi ranks or shops, public toilet, bar or nightclub	127	− 0.52	3.9	32	1.18	5.1	159	4.1		
Public institution—school, police cells, prison	87	− 0.77	2.7	26	1.74	4.1	113	2.9		
Isolated open spaces—veld, park, cemeteries, sports ground, road or alley-way or abandoned building	802	− 3.37	24.9	278	7.62	44.1	1080	28.0		
While taking transport or in a car	63	− 3.24	2.0	50	7.32	7.9	113	2.9		
Witness to the incident (N = 24 missing)										
No	2516	0.84	76.8	467	− 1.85	71.9	2983	75.9	7.15	0.007
Yes	762	− 0.78	23.3	183	1.72	28.2	945	24.1		
Victim not abducted	2195	1.79	67.8	352	− 3.94	53.2	2547	65.3	53	< 0.001
Victim abducted or forcefully moved to another location	1083	− 2.41	32.3	322	5.32	46.8	1405	34.7		
Perpetrator used no physical force	1099	0.46	34.3	208	− 1.00	32.3	1307	34.0	1.79	0.18
Perpetrator used physical force	2179	− 0.32	65.7	466	0.70	67.7	2645	66.0		
Perpetrator(s) did not display a firearm	3092	0.97	94.3	571	− 2.15	84.7	3663	92.7	76.1	< 0.001
Perpetrator(s)displayed a firearm	186	− 3.47	5.7	103	7.65	15.3	289	7.3		
Perpetrator(s) threatened to kill the victim (N = 605 missing)										
No	1872	0.51	66.8	338	− 1.15	62.0	2210	66.0	4.67	0.031
Yes	930	− 0.71	33.2	207	1.61	38.0	1137	34.0		
No colluders present	3021	1.67	92.8	512	− 3.69	75.7	3533	89.9	154.7	< 0.001
Colluders were present	257	− 4.86	7.2	162	10.70	24.3	419	10.1		
Victim not alcohol-intoxicated	2708	0.95	82.6	499	− 2.05	74.0	3207	81.2	26.9	< 0.001
Victim alcohol-intoxicated	570	− 1.93	17.4	175	4.25	26.0	745	18.9		
Victim did not resist	1547	− 1.43	47.2	387	3.15	57.4	1934	48.9	23.4	< 0.001
Victim verbally or physically resisted	1731	1.40	52.8	287	− 3.08	42.6	2018	51.1		
Perpetrator stole/took victim's cellphone (N = 61 missing)										
No	2979	2.54	91.6	449	− 5.61	70.4	3428	88.1	228.7	< 0.001

Table 2 (continued)

	Chi Square test									
	SPR			MPR			Total			
	N	P*r*	%	N	P*r*	%	N	%	X2	P-value for Chi-square test
Yes	274	− 5.61	8.4	189	12.38	29.6	463	11.9		

Reference values for all binary exposures: Chi(1) = 3.84; ‡ Reference values: Chi(5) = 11.07

Table 3 Victim reporting and adherence to Directives in MPRs and SPRs

	SPR			MPR			Total			
	N	Pr	%	N	Pr	%	N	%	X^2	P-value for Chi-square test
Time to reporting										
More than 4 days (96 h)	450	1.44	13.7	57	− 3.17	8.5	507	12.8	17.2	< 0.001
Less than 4 days (96 h)	2388	− 0.20	72.9	503	0.45	74.6	2891	73.2		
Missing time to reporting	440	− 0.91	13.4	114	2.01	16.9	554	14.0		
First report witness relationship to the victim										
Police officer	579	− 0.75	17.3	137	1.69	19.5	716	17.7	60.3	< 0.001
Friend	412	0.20	12.6	77	− 0.44	11.5	489	12.4		
Family member	1398	1.71	42.6	203	− 3.83	30.8	1601	40.7		
Husband or boyfriend	145	− 1.81	4.3	57	4.06	8.7	202	5.0		
Doctor	18	− 0.79	0.4	8	1.78	1.2	26	0.6		
Stranger	129	− 1.60	4	49	3.59	8.1	178	4.7		
Other	597	− 0.05	18.8	120	0.11	20.2	717	19.0		
Victim action soon after rape (N = 173 missing)										
Reported immediately to the police or clinic	884	1.84	27.9	118	− 4.05	19.3	1002	26.5	25.6	< 0.001
Got a friend or relative to accompany them to police or clinic	1516	0.29	47.8	298	− 0.65	48.9	1814	48.0		
Delayed/did other things before reporting	769	− 1.05	24.3	194	2.33	31.8	963	25.5		
Handwritten victim statement taken/available										
No	276	− 2.06	8.7	100	4.53	16.2	376	9.9	27.1	< 0.001
Yes	3002	0.61	91.3	574	− 1.36	83.8	3576	90.1		
First report statement taken/available										
No	504	− 1.17	15.9	113	2.58	18	617	16.2	9.5	0.002
Yes	2774	0.51	84.1	538	− 1.13	82	3312	83.8		
Witness statements taken/available										
No witnesses	2516	0.44	77.1	491	− 0.96	75.2	3007	76.1	4.7	0.1
Witness available statement not taken	135	− 0.30	4.2	32	0.66	4.8	167	4.2		
Witness available statement taken	627	− 0.72	18.7	151	1.59	19.9	778	19.7		
Itemised phone bill subpoenaed by investigators										
Phone stolen; billing requested	194	− 0.25	73.76	141	0.30	77.05	335	75.1	0.62	0.43
Phone stolen; no billing requested	69	0.43	26.24	42	− 0.52	22.95	111	24.9		
Investigator visited the crime scene										
No	1545	0.02	47.3	317	− 0.03	47.8	1862	47.4	0.002	0.962
Yes	1733	− 0.01	52.7	357	0.03	52.2	2090	52.6		
Sexual assault evidence kit (SAECK) completed										
No SAECK	665	0.91	21.1	109	− 2.00	16.2	774	20.3	13.7	0.003
SAECK completed in 96 h	2058	− 0.78	61.5	466	1.71	68.4	2524	62.7		
SAECK completed over 96 h	262	0.94	8.2	36	− 2.08	5.1	298	7.7		
SAECK completion time not available	293	− 0.13	9.2	63	0.30	10.3	356	9.4		
Acknowledgment of receipt of exhibit by FSL										
No exhibit submitted	1,402	1.52	42.77	211	− 3.42	32.46	1,613	41.1	24.3	< 0.001
No receipt available	912	− 0.69	27.82	206	1.54	31.69	1,118	28.5		
Receipt from FSL	964	− 1.10	29.41	233	2.48	35.85	1,197	30.5		
Police closed case before referring for prosecution										
No	2219	1.73	66.7	360	− 3.81	54.8	2579	64.7	50.29	< 0.001
Yes	1059	− 2.37	33.3	314	5.21	45.2	1373	35.3		
Reasons given for police closing cases										
Case not closed	2219	1.73	66.7	360	− 3.81	54.8	2579	65.3	113.7	< 0.001
Case closed for victim reasons only including victim withdrawal	415	1.15	14	58	− 2.53	8.6	473	12.0		
Case closed due to undetected perpetrators only	598	− 3.30	17.8	277	7.28	31.7	825	20.9		
Case closed due to victim and perpetrator reasons	46	− 2.05	1.6	29	4.53	4.9	75	1.9		

Table 3 (continued)

Reference values: Chi(1) = 3.84; Chi(2) = 5.99; Chi(3) = 7.82; Chi(4) = 9.49; Chi(5) = 11.07; Chi(6) = 12.59

Table 4 Case attrition of MPRs and SPRs

	Total		SPR			MPR			
	N	%	N	Overall[a] %	Specificstage[b] %	N	Overall[c] %	Specific stage[d] %	P value
Total cases opened	3952	100	3278	100		674	100		
Perpetrator arrested or charged	2283	56.9	2034	61	61.0	249	36.4	36.4	< 0.0001
Cases closed by police without being referred to prosecutors	1373	35.3	1059	33.3	33.3	314	45.2	45.2	< 0.0001
Cases referred by police to prosecutors	2579	64.7	2219	66.7	66.7	360	54.8	54.8	< 0.0001
Cases accepted by prosecutors and put on court roll	1362	33.8	1182	35.1	53.3	180	27.3	50.0	0.0007
Cases taken to trial	731	17.8	662	19.2	56.0	69	10.6	38.3	< 0.0001
Cases finalised: guilty sexual offence conviction (guilty pleas and convictions)	307	8	278	8.8	42.0	29	4.4	42.0	< 0.0001

[a] adenominator = total SPR sample size = 3278

[b] adenominator = only the MPR cases that made it to the stage. This excludes those dropped prior to current stage

[c] adenominator = total MPR sample size = 674

[d] adenominator = only the MPR cases that made it to the stage. This excludes those dropped prior to current stage

SPRs). A lower proportion of MPR than SPR victims reported to police or health care facilities after four days (8.5% vs 13.7%). A lower proportion MPR than SPR victims first disclosed their experience to family members (30.8% vs. 42.6% SPRs). Higher proportions of victims of MPRS compared to SPRs first disclosed their experience to their intimate partners (8.7% vs 4.3%) and strangers (8.1% vs 4%). A lower proportion of MPRs compared to SPRs immediately reported the case on their own (19.3% vs 27.9%). A higher proportion delayed and did other things before reporting (31.8% vs 24.3%).

Contrary to Policing Directives, compared to SPRs, MPRs had higher proportions of missing handwritten victim statements, (16.2% vs 8.7%) and first report statements (18% vs 15.9%). There were no significant differences in the collection of witness statements, investigator visits to the location of the rape or crime scene and requests for the itemized call list (bill) when the victims' cellphones were stolen among MPRs and SPRs. Compared to SPRs, MPRs had a lower proportion of uncompleted SAECKs (16.1% vs 21.1%) and SAECKs completed over 96 h after the rape incident (5.1 vs 8.2%). However, 41.1% of all cases did not have an exhibit submitted to the Forensic Science Laboratory (FSL). SAECKs from MPRs were less likely to not be sent to the FSL than SPRs (32.5% vs 42.8% SPRs). MPR dockets more often contained the FSL's preliminary letter of receipt (35.9% vs. 29.4% SPRs). A higher proportion of MPRs compared to the SPRs were closed by the police (45.2% vs 33.3% SPRs). More of the MPRs that were closed were due to undetected perpetrators (31.7% vs. 17.8% SPRs).

Table 4 shows that perpetrators of MPRs were less likely to be arrested or charged in court compared to SPRs perpetrators (36.4% vs. 61.0%.) This is partly due to the lower perpetrator detection rate for such cases. Low arrest and charging rates could also be partly due to the number of perpetrators who are minors who would have been placed in diversion programs. MPRs were less likely to be referred by the police for prosecution than SPRs (54.8% v. 66.7%). Almost similar proportions of MPRs and SPRs that were referred to prosecutors were placed on the court roll (50% vs. 53.3%). Trials were less likely to commence in MPRs than SPRs (10.6% vs. 19.2%). Less MPR cases were finalised with a guilty verdict compared to SPRs (4.4% vs. 8.8%).

Discussion

Our analysis of the nationally representative sample has shown that there are differences in case management, patterns of attrition and trajectories of MPRs compared to SPRs in South Africa. In a context of overall high rape case attrition and impunity for perpetrators, victims of (usually very violent) MPRs, are even less likely to see justice served compared to SPR victims. We have shown that MPRs were more likely to involve stranger rapists, targeting lone victims in open and abandoned spaces, with victims threatened, including by display firearms, often abducted and otherwise robbed. As with previous

studies, we have shown that perpetrators in MPRs are more likely to be armed than in SPRs, and that victims are less likely to physically or verbally resist (Jewkes et al., 2012a, 2012b; Woodhams et al., 2012). This is likely due to victims feeling resistance is futile when overwhelmed by the perpetrators (Norris et al., 1996; Rozee & Koss, 2001; Woodhams et al., 2012). Other evidence shows that victims may comply with the perpetrators' expectations as a way to bargain for their freedom or survive their assault (Woodhams et al., 2012). In rape incidents by known perpetrators, women are more likely to use non-forceful resistance (Norris et al., 1996; Woodhams et al., 2012).

These findings show the criminal justice system's failure to protect society's most vulnerable groups, in that Black African women who have historically been disadvantaged and formed the majority victims of MPRs. Further, many of the MPRs perpetrators, who have raped with impunity, will continue to violate many others as South African studies have established that many perpetrators rape more than once and engage in other violent, anti-social and criminal behaviours (Jewkes & Sikweyiya, 2013b). This warrants the attention of the criminal justice system's actors and stakeholders who could improve performance and contribute to rape prevention by ensuring justice and punishment of perpetrators in reported rape cases.

Poor-quality investigations hamper any chances of successful arrest and prosecution no matter the type of crime. Sex crimes are notoriously difficult to successfully prosecute, therefore inadequate investigation is an added handicap. Poor quality investigation of rape cases in South Africa in the form of inadequate witness statements and inadequate use of forensic resources had been noted in this and other studies (Machisa et al., 2022; Van der Watt et al., 2015). For both MPRs and SPRs, there were considerable deviations in applying investigative standards set in the SAPS National Instructions, in the same way as these were found in the 2003 Tracking Justice study. Although in more MPRs compared to SPRs, police conducted many of the activities designed to enhance perpetrator detection, such as visiting the crime scene and submitting the SAECKs to the FSL, they faced greater challenges in identifying and arresting MPR perpetrators compared to SPR perpetrators. Notably operational challenges and backlogs at the FSL may have affected the acknowledgement and processing of specimens – in only about half of cases where the exhibits were submitted was the receipt of acknowledgement received. Given that MPR perpetrators were more often strangers, DNA processing can have an even greater role in the detection of perpetrators in these cases than in SPR cases based on the premise that men who rape very often do so more than once and are more likely to engage in other criminal activity (da Silva et al., 2015; Harkins & Dixon, 2013; Jewkes et al., 2006, 2013, 2010, 2012a, 2012b). Van der Watt et al. (2015) also noted that the ability to behaviorally link cases, especially in the absence of forensic evidence, is severely hampered by inadequate statements (Van der Watt et al., 2015).

Unlike other studies, which show that MPRs often occur in residential settings, our study found that more MPRs occurred in in open spaces or derelict buildings (Bamford et al., 2016). Thus, it is possible that this might limit opportunities to successfully obtain forensic evidence because the exact location might not be able to be located in the case of open spaces, which could be influenced by a victim's state of sobriety at the time of the offence. We have shown that victims were more often drunk alcohol before MPRs than SPRs. Similarly open spaces and derelict buildings may limit the chances of successfully obtaining fingerprints. In half of both SPR and MPR an investigator visited the crime scene, an aspect shown to have a correlation with increased investigative success (Machisa et al., 2022). It was beyond the scope of this research to determine why there was such a low level of attendance in contravention of police directives. This may be due to inadequate resources such as vehicles, laziness or excessive case load on behalf of investigators. However ultimately this indicates a lack of follow through by supervisors who inspect and oversee investigations through regular docket inspections.

Another indicator of poor investigative success associated with MPRs attrition, was that over a quarter of victims had their cellphone taken by the perpetrators, yet in nearly a quarter of such cases no itemized billing and hence no cellphone investigations were done, which could have provided vital evidence to link the perpetrator to the crime. This is a crucial investigative lead when available, in trying to solve any case, especially in these complex MPR cases. It is therefore unsurprising that nearly half of MPR cases (compared to 33% of SPR) were closed by police as undetected without referral to a prosecutor, despite very few being withdrawn by the complainant.

These findings from a nationally representative similar are similar to those of Tracking Justice nine years previously (Jewkes et al., 2012a, 2012b; Vetten, 2008). Tracking Justice also found similar proportions of MPRs among reported rapes (16%); higher proportions of younger male and stranger perpetrators in MPRs than SPRs; the higher occurrence of MPRs in outdoor settings; the use of more aggressive tactics among MPRs than SPRs, and lower arrest rates for MPRs than SPRs (Jewkes et al., 2012a,

2012b). The younger age of perpetrators in MPRs compared to SPRs in our study is consistent with the work of authors who have argued that MPRs in South Africa have a particular place in youth masculinities, within a highly patriarchal and unequal society, where young, often socially marginalized men, violently and misogynistically test the boundaries of male power and dominance over women, particularly in a context where other access to avenues through which they may gain respect as men, such as getting jobs, academic achievement, starting families etc., are denied them (da Silva et al., 2015; Harkins & Dixon, 2013; Jewkes et al., 2015). Although the role of young men in gangs is usually emphasized, we noted that some older men were involved in MPRs, similar to some previous South African studies (Jewkes & Sikweyiya, 2013a; Jewkes et al., 2015, 2012a, 2012b). These findings point to the need to amplify interventions for rape prevention including gender transformative components in South Africa by targeting and effectively engaging younger men.

A great strength of our study is that we have used a nationally representative sample of rape cases reported to the police for the analysis, which allows for generalizing the conclusions to all reported rapes in the country. There were limitations. Firstly, the study had a retrospective design that relied on document review. Therefore, the quality of the data was affected by the limited depth of information, unavailability, or incompleteness of the data sources that were used. The result is that in some instances, some variables had missing observations. The missing information could be attributed to the fact that it was not gathered. Still, it is possible that given that the system is paper-based and involves moving documents between locations, including police stations and courts, the documents may have been misplaced. The content and depth of victims' statements may have been affected by their emotional state at the time of the reporting and their interaction with members of the police. While it was ideal to have more than one research assistant allocated to a docket and establish interrater agreement in data capturing, this was not feasible due to the costs of conducting a complex, large sample size study such as ours. Notably, cases reported to the police may not be representative of all rape cases, including those that were not reported. Therefore, these findings are not generalisable to all rapes. This paper is also limited by not analysing the factors contributing to the attrition of SPRS and MPRs. Its scope is limited to comparisons of whether MPRs and SPRs differ in attrition and differ in characteristics and case management using only the factors that could be extracted retrospectively from the available documentary evidence. It will be important that future studies employ prospective designs and explore how the differences uncovered by this paper relate to attrition. For example, future studies must study whether the differences in case attrition between MPR and SPRs are due to case characteristics or case management differences or a combination of both. Studies must also gather data to enhance understanding of personnel and management factors that influence attrition including detectives and case manager's (non)adherence to the Directives.

Conclusions

All rapes are life-changing and hugely impactful for the victims of rape, however, MPRs are generally considered to be the most severe form of rape. Our findings confirm this, particularly in respect of the circumstances of MPRs which in so many ways render the victim of the rape most powerless and most profoundly violated. In the context of this, our findings seem to suggest that MPRs may be more cursorily investigated resulting in half the likelihood of case finalization with a conviction for rape. These findings point to the need for much more effective supervision of all rape case investigations by SAPS. Priority must be given to investigator training and better resourcing to improve MPRs detection and convictions in adherence to the Directives for rape policing.

Abbreviations

CAS	Crime administration system
FSL	Forensic science laboratory
NPA	National prosecuting authority
MPRs	Multiple perpetrator rapes
SAECKs	Sexual assault evidence collection kits
SAMRC	South African Medical Research Council
SAPS	South African Police Services
SPRs	Single perpetrator rapes
Pr	Pearson or standardised residuals

Acknowledgements

We acknowledge the SAPS National and Provincial Commissioners, the National Prosecuting Authority's National Director of Public Prosecutions, and the Sexual Offences and Community Affairs Unit (NPA SOCA) for supporting this study. The study would also not have been possible without the assistance of the station commanders and staff in the selected police stations and courts across the country.

Author contributions

Conceptualization: RJe, MTM, LV, RJi, LL, and GL. Data curation: MTM formal analysis, MTM, and RJe. Funding acquisition: RJe. Project administration: MTM, and LL. Supervision: RJe. Validation, RJe. Visualization: MTM. Writing—original draft: MTM. Writing—review and editing: MTM, LV, RJi, LL, GR, and RJe. All authors have read and agreed to the published version of the manuscript. All authors read and approved the final manuscript.

Funding

The research was made possible with the generous support of the American people through the United States Agency for International Development (USAID) and the President's Emergency Plan for AIDS Relief (PEPFAR). This publication was made possible through the funds received from the South African Medical Research Council.

Availability of data and materials
The data may be made available by the authors upon reasonable request.

Declarations

Competing interests
The authors have no competing interests.

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Received: 6 July 2022 Accepted: 17 May 2023
Published online: 07 June 2023

References

Artz, L., & Smythe, D. (2007). Case attrition in rape cases: A comparative analysis. *South African Journal of Criminal Justice, 20*(2), 158–181.
Bamford, J., Chou, S., & Browne, K. D. (2016). A systematic review and meta-analysis of the characteristics of multiple perpetrator sexual offences. *Aggression and Violent Behavior, 28*, 82–94.
Cornell Statistical Consulting Unit. (2020). *Adjusted standardized residuals for interpreting contingency tables* https://cscu.cornell.edu/wp-content/uploads/95_conttableresid.pdf
Republic of South Africa. (2007), Criminal Law (Sexual Offences and Related Matters) Amendment Act No. 32 of 2007, Vol. 510. Cape Town: Government Gazette.
da Silva, T., Woodhams, J., & Harkins, L. (2015). Multiple perpetrator rape: A critical review of existing explanatory theories. *Aggression and Violent Behavior, 25*, 150–158.
Gibbs A, Duvvury N, & Scriver S. (2017). What Works Evidence Review: The relationship between poverty and intimate partner violence. In S. A. M. R. C. What Works to prevent Violence against Women and Girls Global Programme. (Ed). Pretoria, South Africa
Gibbs, A., Jewkes, R., Willan, S., & Washington, L. (2018). Associations between poverty, mental health and substance use, gender power, and intimate partner violence amongst young (18–30) women and men in urban informal settlements in South Africa: A cross-sectional study and structural equation model. *PloS One, 13*(10), e0204956. https://doi.org/10.1371/journal.pone.0204956
Harkins, L., & Dixon, L. (2013). A multi-factorial approach to understanding multiple perpetrator sexual offending. *Crime and crime reduction: The importance of group processes*, 75–95.
Jewkes, R., & Abrahams, N. (2002). The epidemiology of rape and sexual coercion in South Africa: An overview. *Social Science & Medicine, 55*(7), 1231–1244.
Jewkes, R., Christofides, N., Vetten, L., Jina, R., Sigsworth, R., & Loots, L. (2009). Medico-legal findings, legal case progression, and outcomes in South African rape cases: Retrospective review. *PLoS Medicine, 6*(10), e1000164.
Jewkes, R., Dunkle, K., Koss, M., Levin, J., Nduna, M., Jama, N., & Sikweyiya, Y. (2006). Rape perpetration by young, rural South African men: Prevalence, patterns and risk factors. *Social Science and Medicine, 63*, 2949–2961.
Jewkes, R., Fulu, E., Roselli, T., & Garcia-Moreno, C. (2013). Prevalence of and factors associated with non-partner rape perpetration: Findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific. *The Lancet Global Health, 1*(4), e208–e218.
Jewkes, R., Nduna, M., Jama-Shai, N., Chirwa, E., & Dunkle, K. (2016). Understanding the relationships between gender inequitable behaviours, childhood trauma and socio-economic status in single and multiple perpetrator rape in rural South Africa: Structural equation modelling. *PLoS ONE, 11*(5), e0154903.
Jewkes, R., Nduna, M., Shai, N., & Dunkle, K. (2012a). Prospective study of rape perpetration by young South African men: Incidence & risk factors. *PLoS ONE, 7*(5), e38210.
Jewkes, R., & Sikweyiya, Y. (2013a). 7 Streamlining Understanding gang rape in. *Handbook on the Study of Multiple Perpetrator Rape: A multidisciplinary response to an international problem.*, 116.
Jewkes, R., & Sikweyiya, Y. (2013). Streamlining: understanding gang rape in South Africa. In Miranda Horvath & Jessica Woodhams (Eds.), *Handbook on the study of multiple perpetrator rape* (pp. 136–151). Abingdon: Routledge.
Jewkes, R., Sikweyiya, Y., Dunkle, K., & Morrell, R. (2015). Relationship between single and multiple perpetrator rape perpetration in South Africa: A comparison of risk factors in a population-based sample [journal article]. *BMC Public Health, 15*(1), 616. https://doi.org/10.1186/s12889-015-1889-9
Jewkes, R., Sikweyiya, Y., Morrell, R., & Dunkle, K. (2010). Why, when and how men rape: Understanding rape perpetration in South Africa. *South African Crime Quarterly, 34*, 23–31.
Jewkes, R., Sikweyiya, Y., Morrell, R., & Dunkle, K. (2011). Gender inequitable masculinity and sexual entitlement in rape perpetration South Africa: Findings of a cross-sectional study. *PLoS ONE, 6*(12), e29590.
Jewkes, R., Vetten, L., Jina, R., Christofides, N., Sigsworth, R., & Loots, L. (2012b). What we know-and what we don't: Single and multiple perpetrator rape in South Africa. *South African Crime Quarterly, 41*, 11–19.
Machisa, M., Jina, R., Labuschagne, G., Vetten, L., Loots, L., Swemmer, S., Jewkes, R. (2017). *Rape Justice in South Africa: A Retrospective Study Of The Investigation, Prosecution And Adjudication Of Reported Rape Cases From 2012*
Machisa, M., Jewkes, R., Morna, C., & Rama, K. (2011). *The war at home: Gender based violence indicators project. Gauteng research report*. Gender Links & South African Medical Research Council.
Machisa, M., Jina, R., Labuschagne, G., Vetten, L., Loots, L., & Jewkes, R. (2022). Factors Associated With Rape Case Attrition in the South African Criminal Justice System: A National Cross-Sectional Study. *The British Journal of Criminology, 63*(3), 588–614.
National Prosecuting Authority South Africa. (2014). *National Directives on the Prosecution of Sexual Offences cases in terms of the Criminal Law (Sexual Offences and Related Matters) Amendment Act, 2007*. Pretoria
Norris, J., Nurius, P. S., & Dimeff, L. A. (1996). Through Her Eyes Factors Affecting Women's Perception of and Resistance to Acquaintance Sexual Aggression Threat. *Psychology of Women Quarterly, 20*(1), 123–145.
Rozee, P. D., & Koss, M. P. (2001). Rape: A century of resistance. *Psychology of Women Quarterly, 25*(4), 295–311.
Seedat, M., Van Niekerk, A., Jewkes, R., Suffla, S., & Ratele, K. (2009). Violence and injuries in South Africa: Prioritising an agenda for prevention. *The Lancet, 374*(9694), 1011–1022.
Smythe, D. (2015). *Rape Unresolved: Victims and Police Responses in South Africa*. University of Cape Town Press.
South African Police Services. (2008). *National Instruction 3/2008: Sexual Offences* Government Gazette
South African Police Services, (2018). *Annual Crime Report 2017/18*
Tharp, A. T., DeGue, S., Valle, L. A., Brookmeyer, K. A., Massetti, G. M., & Matjasko, J. L. (2013). A systematic qualitative review of risk and protective factors for sexual violence perpetration. *Trauma, Violence, & Abuse, 14*(2), 133–167.
Van der Watt, M., Benson, B., & Labuschagne, G. (2015). From stranger to serial:(re) emphasising the value of docket analysis as a linkage tool in serial rape identification. *Acta Criminologica: African Journal of Criminology & Victimology, 28*(2), 62–77.
Vetten, L., Jewkes, R., Sigsworth, R., Christofides, N., Loots L., Dunseith, O. (2008). *Tracking justice: the attrition of rape cases through the criminal justice system in Gauteng*.
Watson, J. (2015). The role of the state in addressing sexual violence: Assessing policing service delivery challenges faced by victims of sexual offences. In *APCOF Policy Brief No 13* Cape Town, South Africa: African Policing Civilian Oversight Forum.
Woodhams, J., Hollin, C. R., Bull, R., & Cooke, C. (2012). Behavior displayed by female victims during rapes committed by lone and multiple perpetrators. *Psychology, Public Policy, and Law, 18*(3), 415–452. https://doi.org/10.1037/a0026134

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