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Perpetration of gross human rights violations in South Africa: Association with psychiatric disorders

Dan J Stein, FRCPC, PhD, DPhil
Department of Psychiatry and Mental Health, University of Cape Town

Stacey L Williams, PhD
Department of Psychology, East Tennessee State University, Johnson City, Tenn., USA

Pamela B Jackson, PhD
Department of Sociology, Indiana University, Bloomington, Ind., USA

Soraya Seedat, MB ChB, FCPsych (SA), PhD
MRC Stress and Anxiety Disorders Unit, Department of Psychiatry, Stellenbosch University, Tygerberg, W Cape

Landon Myer, MB ChB, PhD
School of Public Health and Family Medicine, University of Cape Town

Allen Herman, MB ChB, PhD
National School of Public Health, University of Limpopo (Medunsa Campus), Pretoria

David R Williams, MPH, PhD
Department of Society, Human Development and Health, Harvard School of Public Health, and Department of African and African American Studies, Harvard University, Cambridge, Mass., USA

Abstract

Background—A nationally representative study of psychiatric disorders in South Africa provided an opportunity to study the association between perpetration of human rights violations (HRVs) during apartheid and psychiatric disorder. Prior work has suggested an association between perpetration and post-traumatic stress disorder (PTSD), but this remains controversial.

Methods—Subjects reported on their perpetration of human rights violations, purposeful injury, accidental injury and domestic violence. Lifetime and 12-month prevalence of DSM-IV (*Diagnostic and Statistical Manual*, 4th edition) disorders were assessed with Version 3.0 of the World Health Organization Composite International Diagnostic Interview (CIDI 3.0). Socio-demographic characteristics of these groups were calculated. Odds ratios for the association between the major categories of psychiatric disorders and perpetration were assessed.

Results—HRV perpetrators were more likely to be male, black and more educated, while perpetrators of domestic violence (DV) were more likely to be female, older, married, less educated and with lower income. HRV perpetration was associated with lifetime and 12-month anxiety and substance use disorders, particularly PTSD. Purposeful and DV perpetration were associated with lifetime and 12-month history of all categories of disorders, whereas accidental perpetration was associated most strongly with mood disorders.

Conclusion—Socio-demographic profiles of perpetrators of HRV and DV in South Africa differ. While the causal relationship between perpetration and psychiatric disorders deserves

Corresponding author: D J Stein (dan.stein@uct.ac.za).

further study, it is possible that some HRV and DV perpetrators were themselves once victims. The association between accidental perpetration and mood disorder also deserves further attention.

South Africa provides a unique laboratory for studying the perpetration of different forms of violence. During apartheid a range of acts of racial violence were perpetrated, including gross human rights violations (HRVs). However, both before and after apartheid there have also been significant levels of domestic and criminal violence.[1] Injuries were the second-leading cause of premature death and interpersonal injury and accounted for 14.3% of disability-adjusted life-years in South Africa in 2000,[2] with interpersonal injury predominating.[3] A survey in 1998 found that 2 in 1 000 South Africans had experienced a violent injury requiring medical treatment in the previous month, while 9 in 1 000 households had had a violent death in the previous year.[4] Community surveys have emphasised high levels of domestic and partner violence,[5–11] including sexual assault and rape.[12–16]

Studies have suggested significant associations between perpetration of violence and mental illness. Although public perceptions of the link between disorders such as schizophrenia and violence are clouded by stigma, a systematic review found perpetration of violence and violence victimisation to be more common in persons with severe mental illness than in the general population.[17] The relationship among substance use, violence and victimisation is also well established, particularly the association between men's substance use and perpetration of physical violence.[18,19] While associations between perpetration and antisocial traits[20–24] can be expected, there is also the less obvious possibility that many perpetrators have themselves been exposed to trauma (e.g. childhood abuse, marital violence, military combat), or suffer from post-traumatic stress disorder (PTSD).[16,24–30]

The South African Stress and Health (SASH) study is a nationally representative survey that provides information on the prevalence of common mental disorders and on a range of other variables, including perpetration of violence.[31] We report on the association between perpetration and common mental disorders.

Methods

Subject sample

The SASH was a national probability sample of adult South Africans living in households and hostel quarters, obtained between January 2002 and June 2004.[31] Hostel quarters were included to maximise coverage of young working-age males, but did not include individuals in institutions or the military. The sample was selected using a three-stage probability sample design. A total sample of 5 089 households was selected for the SASH; field interviews were obtained with 4 433 (87.1%) and based on quality control criteria, 4 351 were retained for analysis.

Diagnostic interview

The diagnostic interview used in the SASH was the World Health Organization (WHO) Composite International Diagnostic Interview Version 3.0 (CIDI 3.0),[32] a fully structured lay-administered interview that generates diagnoses according to the criteria of both the ICD-10 (International Statistical Classification of Diseases and Related Health Problems, 10th revision) and DSM-IV (*Diagnostic and Statistical Manual*, 4th edition) diagnostic systems. Because of time constraints, the interview excluded several disorders (e.g. specific phobia, impulse control disorders other than intermittent explosive disorder). DSM-IV criteria are used in this report. Given the potential significance of PTSD, the analyses focus on this specific disorder and four summary categories of mental disorders: anxiety disorders (panic disorder, agoraphobia, social phobia, generalised anxiety disorder, PTSD), mood

disorders (major depressive disorder, dysthymia), substance use disorders (alcohol abuse, alcohol dependence, drug abuse, drug dependence), and a global category of any of the abovementioned disorders. DSM-IV organic exclusion rules and diagnostic hierarchy rules were applied to all diagnoses, except in the case of substance use disorders where abuse was defined with or without dependence. Interviewers were trained in the administration of the CIDI in centralised group sessions lasting 1 week. The interviews were conducted face to face in English, Afrikaans, Zulu, Xhosa, Northern Sotho, Southern Sotho or Tswana. The protocol was approved by an ethics committee and all subjects gave informed consent. Interviews lasted an average of 3½ hours, with some requiring more than one visit to complete.

Assessment of perpetration

Perpetration was assessed using different probes. First, respondents were asked: `Because of political reasons did you ever arrest or detain someone, kidnap or abduct someone, participate in the destruction of someone's home or property, physically beat or injure someone, participate in the death of someone, kill someone, participate in any other form of torture or human rights violation?' Our HRV perpetrator variable is a dichotomous indicator contrasting individuals who reported one or more of those experiences to those who reported none (HRV perpetration). Second, in screening for PTSD, subjects were asked whether they had ever seriously injured, tortured or killed someone (purposeful perpetration), or accidentally seriously injured or killed someone (accidental perpetration). Third, domestic violence perpetration was assessed by the frequency with which the respondent had slapped or hit, thrown something at, or pushed, grabbed or shoved her/his current or former spouse or partner.[33]

Statistical analysis

The person-level SASH data were weighted to adjust for differential probabilities of selection within households, differential non-response, and residual discrepancies between the sample and the population on a profile of census demographic and geographical variables and used in all data analyses. Data analysis was carried out using SAS and SAS-callable SUDAAN software to adjust estimates of statistical significance for the weighting and clustering of the data.

For each perpetrator variable, bivariate comparisons of socio-demographic variables (gender, age, race, income, marital status, education, employment status, location) were undertaken, and then associations of perpetration with mental disorder were assessed, adjusting for these socio-demographic variables. (Use of race variables is not intended to reify socially constructed categories, but to allow an exploration of the effects of historical circumstances on current public health issues.)

Results

Domestic violence (DV) was common (15%), with lower figures for HRV perpetration (3%), and purposeful (1.0%) and accidental (1.9%) perpetration. Table I demonstrates the bivariate comparisons with socio-demographic factors. HRV perpetrators were more likely to be male, black, and better educated. Purposeful perpetrators were more likely to be white and employed with a trend towards being male, while accidental perpetrators were more likely to be male. DV perpetrators were more likely to be female, older, married, less educated, and with lower income.

Logistic regression models are presented for each of the perpetration variables. Table II presents the association between HRV perpetration and mental disorders. As in the

subsequent tables, each row of the table presents findings from a multivariate regression model in which the association between the perpetrator variable and disorder was examined adjusted for all of the socio-demographic factors. HRV perpetration was associated with lifetime and 12-month anxiety and substance use disorders. The odds ratios (ORs) were particularly large for PTSD. Purposeful perpetration (Table III) was associated with lifetime and 12-month history of all categories of disorders. Despite the small numbers, the ORs were very large for both 12-month and lifetime rates of disorder, suggesting a robust association. In contrast, the association with disorders is much weaker for accidental perpetration (Table IV), although there is an elevated risk for lifetime and 12-month mood disorder and 12-month anxiety and substance disorders. DV perpetration (Table V) was associated with lifetime and 12-month history of all categories of disorders.

Discussion

We found that different kinds of perpetration appear to be associated with different socio-demographic profiles, and are associated with different clinical disorders. There have been few population-based surveys of the clinical correlates of perpetration, and these findings have implications for understanding the nature of perpetration, and for developing appropriate interventions.

HRV perpetrators were more likely to be male, black and more educated, and HRV perpetration was associated with lifetime and 12-month anxiety and substance use disorders, particularly PTSD. These subjects may have been employed by the security forces (police, military, etc.) during apartheid. While causal relationships cannot be determined from these data, studies have indicated that perpetration of violent acts during combat can lead to subsequent PTSD.[34]

In contrast, DV perpetrators were more likely to be female, older, married, less educated, and with lower income. Although statistical significance was not reached, there was a trend for race to be significant with elevated risk associated with being Indian or coloured. DV perpetration was also associated with lifetime and 12-month history of all categories of disorders. The gender findings are consistent with previous studies; in South Africa, partner violence in adolescents was higher in females than in males,[7] and a meta-analysis of over 80 studies found that women were more likely than men to perpetrate violent behaviour in their intimate relationships than men.[35] However, it is important to emphasise that when gender analyses include differences in impact and context, women are disproportionately victimised by partner violence.[36,37] Men are more coercively controlling of their partners than females – a context which may significantly change the meaning of females' use of violence in a relationship.[38] Similar considerations may also apply to other socio-demographic correlates of DV perpetration found here. In keeping with the association of DV perpetration with mental disorders, studies have found a range of psychopathology in this population.[21–24,38–42]

There were small samples of purposeful and accidental perpetrators. Purposeful perpetrators were more likely to be white, under 50 and employed, and may represent those employed by the security establishment and involved in particularly serious acts of perpetration. In contrast, apart from being male, accidental perpetrators had no significant socio-demographic associations. Purposeful perpetration was associated with lifetime and 12-month history of all categories of disorders, whereas accidental perpetration was associated most strongly with mood disorders. These findings are consistent with the high levels of psychopathology in members of the South African security forces,[43] and with descriptions of regret and remorse in accidental perpetrators.

A number of limitations must be emphasised. First, there are concerns about whether self-report questions about perpetration are answered truthfully. Partial reassurance is perhaps obtained from retrospective reporting of sensitive questions such as that of childhood adversity; although false-negative reports are common, false-positive reports are rare, so that retrospective case-control studies of such adversities are potentially valid.[44] We also implemented procedures known to improve the accuracy of reporting of sensitive questions in surveys.[45] These included using a commitment probe (having respondents pledge to trying hard to answer the questions accurately) and using `forgiving' language (the questions about human rights perpetration were preceded by a statement that said, `during times of conflict and because of one's job, people sometimes do things that they normally would not do'). Nevertheless, while many respondents admitted to DV perpetration, consistent with previous work in South Africa,[5–10] few admitted to purposeful or accidental perpetration, and these findings should therefore be interpreted with caution. Second, these analyses did not adjust for levels of severity of perpetration; more severe and less severe perpetration may have different socio-demographic and clinical correlates.[36,46] Other aspects of perpetration were also not captured (for example, the extent to which DV perpetration was one-sided or mutual[38]). Third, associations between perpetration and mental disorder were not investigated separately in males and females; previous work has suggested gender-specific correlations.[21,22,41] Fourth, the data do not allow temporal or causal relationships to be established, and the extent to which mental disorders are causes or consequences of perpetration cannot be determined.

Nevertheless, this study provides the first data on associations between multiple types of perpetration and mental illness in South Africa, and provides avenues for exploration by researchers and policy makers, locally and abroad. Several interventions are effective for reducing interpersonal violence.[47–50] Given the high burden of disease associated with trauma in general in South Africa, and interpersonal violence in particular, and the relationships of interpersonal violence with mental disorder and sexually transmitted infections such as HIV/AIDS,[13,51,52] these interventions deserve serious consideration. The limitations of the data here need to be taken into account when formulating such interventions; for example, the more coercive perpetration of males probably deserves priority. The high prevalence of domestic violence perpetration warrants special attention, but an understanding of the nature of other kinds of perpetration and the development of appropriate interventions is also key.[53,54]

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Table I

Demography of perpetration

	Perpetrator of HRV	Purposeful perpetrator of injury	Accidental perpetrator of injury	Perpetrator of domestic violence
Total				
N (%)	111 (3.0)	38 (1.0)	75 (1.9)	690 (15.7)
Gender				
Male	78 (4.8)	24 (1.4)	43 (2.6)	242 (14.1)
Female	33 (1.4)	14 (0.5)	32 (1.3)	448 (17.1)
χ^2 (*p*)	16.5 (0.000)	3.6 (0.064)	11.0 (0.002)	4.0 (0.050)
Race				
Black	97 (3.3)	28 (0.9)	63 (2.1)	507 (14.8)
Coloured	9 (1.8)	5 (1.1)	6 (1.4)	105 (19.5)
White	4 (2.6)	5 (1.4)	3 (0.8)	42 (15.8)
Indian	1 (0.5)	0 (0.0)	3 (1.8)	36 (24.7)
χ^2 (*p*)	16.1 (0.002)	25.5 (0.000)	4.3 (0.245)	7.7 (0.064)
Age (yrs)				
18 – 34	53 (2.6)	22 (1.0)	32 (1.9)	224 (10.1)
35 – 49	44 (4.1)	11 (1.3)	30 (2.3)	276 (20.8)
50 – 64	10 (2.5)	4 (0.5)	12 (1.6)	139 (23.0)
≥65	4 (2.2)	1 (0.3)	1 (0.6)	50 (24.1)
χ^2 (*p*)	3.6 (0.322)	8.3 (0.049)	5.5 (0.150)	63.7 (0.000)
Marital status				
Unmarried	56 (2.8)	24 (1.3)	37 (1.8)	143 (5.7)
Married	55 (3.2)	14 (0.7)	38 (2.0)	547 (26.0)
χ^2 (*p*)	0.4 (0.519)	1.8 (0.189)	0.1 (0.748)	165 (0.000)
Education				
None	8 (2.8)	5 (0.9)	7 (2.2)	68 (24.7)
Grade 1 – 7	18 (2.4)	5 (0.6)	19 (2.3)	196 (22.1)
Grade 8 – 11	41 (3.1)	12 (1.0)	27 (1.8)	256 (15.5)
Grade 12	20 (1.9)	11 (1.4)	10 (1.4)	92 (11.1)
Grade 13+	24 (4.8)	5 (0.6)	12 (2.1)	78 (11.8)
χ^2 (*p*)	11.9 (0.026)	3.2 (0.523)	1.4 (0.836)	49.6 (0.000)
Income (R)				
0	14 (2.9)	6 (0.7)	11 (1.8)	102 (15.9)
1 – 1 500	28 (2.7)	8 (0.9)	14 (1.2)	178 (17.9)
1 501 – 16 500	21 (2.7)	11 (1.3)	13 (1.4)	156 (17.6)
16 501 – 97 500	20 (2.6)	5 (0.8)	16 (1.7)	144 (15.3)
≥97 501	28 (4.0)	8 (1.0)	21 (3.2)	110 (12.1)
χ^2 (*p*)	2.4 (0.661)	1.6 (0.800)	7.9 (0.110)	13.2 (0.016)
Employment status				
Unemployed	72 (2.8)	20 (0.6)	52 (1.7)	449 (13.9)

	Perpetrator of HRV	Purposeful perpetrator of injury	Accidental perpetrator of injury	Perpetrator of domestic violence
Employed	39 (3.4)	18 (1.6)	23 (2.3)	241 (19.7)
χ^2 (p)	0.7 (0.405)	4.4 (0.041)	0.8 (0.379)	7.5 (0.008)
Location				
Rural	43 (2.7)	14 (0.6)	33 (2.0)	316 (17.2)
Urban	68 (3.1)	24 (1.1)	42 (1.8)	374 (14.8)
χ^2 (p)	0.4 (0.510)	3.6 (0.063)	0.2 (0.679)	2.2 (0.146)

Table II

Multivariate odds ratios (with 95% confidence intervals) for DSM-IV disorders (predictor: perpetration of human rights violations, model *N*=4 188)

Outcome	OR	LCI	UCI	p
Lifetime disorders				
All DSM-IV	3.12	1.89	5.12	0.000
Anxiety disorder	2.80	1.69	4.65	0.000
PTSD	5.82	2.67	12.72	0.000
Mood disorder	1.44	0.67	3.12	0.345
Substance use	3.18	2.11	4.81	0.000
Past 12-month disorders				
All DSM-IV	1.52	0.95	2.44	0.082
Anxiety disorder	1.88	0.98	3.61	0.058
PTSD	5.24	1.68	16.35	0.005
Mood disorder	0.50	0.16	1.57	0.232
Substance use	1.97	1.01	3.83	0.048

LCI = lower confidence interval; UCI = upper confidence interval.

Table III

Multivariate odds ratios (with 95% confidence intervals) for DSM-IV disorders (predictor: purposeful perpetration of serious injury, torture or death, model *N*=4 310)

Outcome	OR	LCI	UCI	p
Lifetime disorders				
All DSM-IV	6.72	3.07	14.68	0.000
Anxiety disorder	5.63	2.84	11.17	0.000
PTSD	5.19	1.64	16.37	0.006
Mood disorder	4.88	1.71	13.88	0.004
Substance use	2.91	1.20	7.04	0.019
Past 12-month disorders				
All DSM-IV	6.09	2.53	14.63	0.000
Anxiety disorder	7.38	2.14	25.50	0.002
PTSD	22.92	6.62	79.40	0.000
Mood disorder	4.49	1.29	15.59	0.019
Substance use	2.47	1.09	5.60	0.031

LCI = lower confidence interval; UCI = upper confidence interval.

Table IV

Multivariate odds ratios (with 95% confidence intervals) for DSM-IV disorders (predictor: accidental perpetration of serious injury or death, model *N*=4 293)

Outcome	OR	LCI	UCI	p
Lifetime disorders				
All DSM-IV	1.99	1.17	3.37	0.012
Anxiety disorder	1.36	0.70	2.65	0.354
PTSD	0.42	0.05	3.29	0.399
Mood disorder	2.45	1.31	4.58	0.006
Substance use	1.75	0.92	3.33	0.088
Past 12-month disorders				
All DSM-IV	2.66	1.42	4.98	0.003
Anxiety disorder	2.26	1.03	4.93	0.041
PTSD	-	-	-	-
Mood disorder	3.72	1.57	8.79	0.003
Substance use	2.16	1.00	4.69	0.051

LCI = lower confidence interval; UCI = upper confidence interval.

Table V

Multivariate odds ratios (with 95% confidence intervals) for DSM-IV disorders (predictor: perpetration of domestic violence, model *N*=4 136)

Outcome	OR	LCI	UCI	p
Lifetime disorders				
All DSM-IV	2.00	1.67	2.39	0.000
Anxiety disorder	1.47	1.09	1.96	0.011
PTSD	2.02	1.22	3.36	0.007
Mood disorder	1.84	1.34	2.54	0.000
Substance use	2.43	1.76	3.36	0.000
Past 12-month disorders				
All DSM-IV	1.80	1.40	2.31	0.000
Anxiety disorder	1.58	1.12	2.25	0.011
PTSD	2.73	0.92	8.05	0.069
Mood disorder	1.76	1.11	2.78	0.017
Substance use	2.09	1.39	3.14	0.001

LCI = lower confidence interval; UCI = upper confidence interval.