



## Effects of male rape on psychological functioning

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**Background.** Since the 1970s there has been a wealth of literature on the effects of rape on women. However, the study of the effects of male rape is still in its infancy. The aim of this study was investigate the psychological functioning of 40 British male rape survivors, and compare their level of functioning with that of a matched control group.

**Methods.** Participants, recruited through national advertising in the British press, completed a series of questionnaires, measuring psychological functioning, assumptions about the world, self-esteem, and (survivors only) PTSD-related intrusion and avoidance.

**Results.** The male rape group had much poorer psychological functioning than the controls, lower self-worth, and lower self-esteem. Most survivors reported high levels of intrusive thoughts and avoidance in relation to the assault. Logistic regression showed that lack of treatment after the assault predicted suicide attempts.

**Conclusions.** Results are discussed in relation to treatment issues for male rape survivors.

Until relatively recently, little work had been conducted on the effects of male rape, and current research is still limited. Data are typically derived from specific samples, for example, counselling services (e.g. Hillman, O'Mara, Taylor-Robinson, & Harris, 1990; King & Woollett, 1997), emergency rooms (Frazier, 1993; Pesola, Westfal, & Kuffner, 1999), clinical patients, (e.g. Huckle, 1995; Myers, 1989), genito-urinary medicine (GUM) clinics, or GP practices (e.g. Coxell, King, Mezey, & Kell, 2000; King, Coxell, & Mezey, 2002). Survivors who do not belong to clinical populations have rarely been investigated (Mezey & King, 1989). Some studies include assaults other than anal rape (e.g. Mezey & King, 1989; Coxell *et al.*, 2000; King *et al.*, 2002), which could confound findings, and others have not differentiated between men who were sexually assaulted as adults and those reporting child sexual abuse (e.g. Hillman *et al.*, 1990).

Male rape survivors display psychological disturbances, sometimes years after the assault, for example, depressive symptoms and suicide attempts (e.g. Mezey & King, 1989), lack of self-esteem (Myers, 1989), symptoms of post-traumatic stress disorder

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(PTSD: Coxell & King, 1996; Myers, 1989), and a range of other problems, including sexual dysfunction, and alcohol and drug misuse (e.g. Coxell & King, 1996).

The aim of this study is to investigate the effects of rape on a non-clinical sample by comparing them on standard tests with a control group, with no prior history of sexual assault. No studies have compared men that have been raped with controls. Survivors completed a series of questionnaires, designed to measure aspects of psychological functioning, assumptions about the world, self-esteem, and symptoms of PTSD. The control group completed the same questionnaires, except for the measure of PTSD, which refers to a particular traumatic event. From previous studies of male rape survivors, and of survivors of other traumatic events, (e.g. Janoff-Bulman, 1989), we predicted that the survivor group would have more negative scores on measures of psychological functioning, lower self-esteem, and more negative assumptions about the world, than the controls. We also undertook preliminary assessment of the severity of psychological dysfunction in relation to personal characteristics of the survivors and the assault on the likelihood of attempted suicide, in view of its practical importance to clinical practice.

## Method

### Access to participants

Advertisements were placed in three British newspapers, several men's life-style magazines, on a sexual abuse survivor's page on the Internet, and in five GUM departments.<sup>1</sup> Fifty-two responses were received, and from these, 40 men returned the questionnaire (return rate = 77%). The control group, which was recruited by convenience sampling, was matched as much as possible with the survivors on a range of demographic variables.

### Procedure

Advertisements asked respondents to contact the first author by telephone and she discussed the nature of the research with each caller. If they were willing to take part in the research, the questionnaires and instructions were mailed to them, together with a pre-paid envelope. Respondents were assured of confidentiality and anonymity. The controls were asked to complete and return the questionnaires in the same way.

### Sample characteristics

Approximately half the survivors identified themselves as gay and 32% as heterosexual. At the time of the assault, most survivors (70%) were aged between 16 and 25 years (mean age = 24.0 years; *SD* = 8.7 years). Only one man was aged over 50 at the time of the assault. The mean age at the time of the study was 34.2 years. All respondents reported that they were white and British. Most respondents were employed at the time of the study, although 35% were unemployed. Table 1 also shows the demographic characteristics of the controls, to indicate the degree of match.

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<sup>1</sup> Most participants were recruited from *Loot*, but some were recruited from the *Daily Telegraph*, and *Gay Times*, a lifestyle magazine for gay men. Only two were recruited from GUM clinics.

**Table 1.** Demographic characteristics of survivors and control participants

| Characteristics                | Rape survivors |     | Control participants |     |
|--------------------------------|----------------|-----|----------------------|-----|
|                                | N              | %   | N                    | %   |
| Ethnicity                      |                |     |                      |     |
| White                          | 40             | 100 | 40                   | 100 |
| Sexual orientation             |                |     |                      |     |
| Heterosexual                   | 13             | 32  | 14                   | 35  |
| Homosexual                     | 21             | 53  | 21                   | 52  |
| Bisexual                       | 4              | 10  | 5                    | 13  |
| Asexual                        | 2              | 5   | 0                    | 0   |
| Educational level              |                |     |                      |     |
| No qualifications              | 7              | 17  | 5                    | 12  |
| O&A Levels                     | 17             | 42  | 18                   | 45  |
| Degree                         | 11             | 28  | 13                   | 33  |
| Postgraduate                   | 15             | 3   | 4                    | 10  |
| Employment status              |                |     |                      |     |
| Unemployed                     | 14             | 35  | 12                   | 30  |
| Student                        | 3              | 7   | 6                    | 15  |
| Unskilled                      | 1              | 3   | 1                    | 3   |
| Semiskilled                    | 6              | 15  | 6                    | 15  |
| Skilled professional           | 5              | 12  | 5                    | 12  |
| Professional                   | 11             | 28  | 10                   | 25  |
| Relationship status            |                |     |                      |     |
| In a homosexual relationship   | 7              | 17  | 8                    | 20  |
| In a heterosexual relationship | 9              | 23  | 13                   | 32  |
| Not in a relationship          | 24             | 60  | 19                   | 48  |

### Measures

*The General Health Questionnaire* (GHQ: Goldberg, 1978) consists of 28 items that measure aspects of psychological functioning: somatic symptoms, anxiety, social dysfunction, and depression. Responses were elicited along a 4-point scale, from *not at all* to *much more than usual*. Cronbach's  $\alpha$ s for the present sample were: .90 for somatic symptoms, .94 for anxiety, .91 for social dysfunction, .97 for depression, and .85 overall.

*The World assumptions scale* (WAS: Janoff-Bulman, 1989) consists of 32 items that measure people's basic assumptions about the world in which they live. The subscales of the WAS are benevolence of the world, benevolence of people, justice, controllability, randomness, self-worth, self-controllability, and luck. Each subscale consists of four items. Each of the items on these scales was rated along a 6-point scale, from 1 (*strongly disagree*) to 6 (*strongly agree*). Cronbach's  $\alpha$ s for the subscales ranged from .40 to .83, the lowest being randomness (.40), justice (.58), and self-control (.69). It should be noted that  $\alpha$ s tend to be low when there are few items on a subscale.

*The State self-esteem scale* (Heatherington & Polivy, 1991) consists of 20 items that measure current feelings of self-esteem. It consists of three subscales: performance, social, and appearance. Responses were made along a 5-point scale, from 1 (*not at all*) to 5 (*extremely*). Cronbach's  $\alpha$ s were .91 (performance), .91 (social), and .92 (appearance).

*The Impact of event scale* (IES; Horowitz, Wilner, & Alvarez, 1979) consists of 15 statements that refer to a serious life-event, in the present case to the rape. Seven of the items measure intrusion of thoughts related to the event. The other eight measure avoidance of thoughts related to the rape. Responses were made along a 4-point scale, from 1 (*not at all*) to 4 (*often*). Cronbach's  $\alpha$ s were .87 (intrusion) and .84 (avoidance).

### **Assault characteristics**

A brief summary of the assault characteristics is provided here as background (see Walker, Archer, & Davies, 2005, for further details). Most assaults took place indoors. Coercion was reported in nearly all cases, and physical force in more than half the cases. Acquaintances carried out most assaults. In most cases (62.5%; 25/40) there was one perpetrator. As well as being anally raped, 55% (22/40) of survivors also experienced oral penetration. Fourteen survivors sought medical treatment for their injuries but only five disclosed the sexual nature of the assault during treatment. The majority of survivors reported negative reactions after the assault, such as depression, anxiety, issues to do with sexuality, and increased alcohol and/or drug misuse. Twenty-two survivors had thought about suicide since the assault, and 19 had made suicide attempts. Over half of the men (58%; 23/40) sought psychological help after the rape, although in most cases help was not sought unless long after the assault. Only five of the men reported their assault to the police, which resulted in one conviction.

## **Results**

Comparisons were made between the rape and control groups on all scales, using *t* tests. The  $\alpha$  level was adjusted to .01 for multiple comparisons.

### **General Health Questionnaire (GHQ)**

As predicted, the survivors had significantly higher scores than the controls on each GHQ subscale (Table 2): the effect sizes (*d* values) for the differences ranged from .66 (somatic symptoms) to 1.56 (depression), all large differences. Using the definition of a high score as one between 15 and 21 on a particular subscale, 30% (12/40) of survivors showed high levels of somatic symptoms, 28% (11/40) high levels of social dysfunction, 42% (17/40) displayed high levels of anxiety, and 35% (14/40) were high on the depression subscale. None of the controls showed any of these characteristics.

### **World assumption scale**

Contrary to predictions, the survivor and control groups did not differ significantly on the benevolence of the world, benevolence of people, justice, controllability, luck, randomness, and self-controllability (Table 2). However, the survivors showed significantly lower scores than the controls on the self worth (*d* = 0.91) subscale. Effect sizes for the comparison between survivors and controls on the other scales were generally low, indicating genuine lack of differences rather than type two errors.

### **State self-esteem**

As predicted, the survivor group showed significantly lower self-esteem scores than the controls, and this difference was found on the performance, appearance, and social

**Table 2.** Means, standard deviations, *t* values and significance for GHQ, WAS, and self-esteem

| Scale                    | Survivor group<br>Mean | Control group<br>Mean | <i>t</i> | <i>df</i> | <i>p</i>  |
|--------------------------|------------------------|-----------------------|----------|-----------|-----------|
| <b>GHQ</b>               |                        |                       |          |           |           |
| Somatic symptoms         | 10.25 (5.49)           | 7.30 (3.10)           | 2.96     | 78        | .005      |
| Anxiety and insomnia     | 12.55 (5.76)           | 7.47 (3.87)           | 4.62     | 78        | .001      |
| Social dysfunction       | 10.92 (4.42)           | 7.35 (1.67)           | 4.78     | 78        | .001      |
| Severe depression        | 9.77 (7.17)            | 1.32 (2.24)           | 7.06     | 78        | .001      |
| <b>WAS</b>               |                        |                       |          |           |           |
| Benevolence of the world | 13.65 (5.60)           | 13.97 (3.25)          | -0.32    | 78        | <i>ns</i> |
| Benevolence of people    | 14.75 (5.20)           | 15.02 (3.05)          | -0.029   | 78        | <i>ns</i> |
| Justice                  | 10.15 (3.96)           | 10.67 (2.90)          | -0.68    | 78        | <i>ns</i> |
| Controllability          | 12.12 (3.94)           | 10.65 (3.27)          | 1.82     | 78        | <i>ns</i> |
| Randomness               | 16.37 (3.60)           | 17.45 (2.14)          | -1.62    | 78        | <i>ns</i> |
| Self-worth               | 13.50 (5.28)           | 18.10 (4.73)          | -4.10    | 78        | .001      |
| Self-controllability     | 16.50 (3.90)           | 16.52 (2.36)          | -0.03    | 78        | <i>ns</i> |
| Luck                     | 11.97 (4.83)           | 14.40 (4.13)          | -2.41    | 78        | .05       |
| <b>Self-esteem</b>       |                        |                       |          |           |           |
| Performance              | 22.55 (6.69)           | 26.85 (6.33)          | 2.95     | 78        | .001      |
| Social                   | 20.57 (7.39)           | 26.32 (6.98)          | 3.58     | 78        | .001      |
| Appearance               | 15.82 (6.36)           | 20.87 (5.10)          | 3.74     | 78        | .001      |
| Total scale              | 58.95 (18.52)          | 74.05 (17.60)         | 3.74     | 78        | .001      |
| <b>IES</b>               |                        |                       |          |           |           |
| Intrusion                | 22.23 (9.37)           | -                     | -        | -         | -         |
| Avoidance                | 23.70 (10.43)          | -                     | -        | -         | -         |

subscales (Table 2). Effect sizes (*d*) ranged from .65 (performance) to .83 (social). The overall *d* value was .83.

### **Impact of event scale**

As predicted, the majority suffered from intrusive re-experiencing of the rape: 58% (23/40) reported experiencing intrusive thoughts 'often' and 32% (13/40) 'sometimes'. The experiences reported most often were, 'I thought about it when I didn't mean to' and, 'Pictures about it popped in to my mind'. Eighty percent (32/40) reported having trouble falling to sleep because of images and thoughts related to the rape. Seventy-five percent (30/40) reported experiencing dreams and nightmares. Accordingly, most survivors consciously recognized avoidance of certain ideas, feelings, and situations. Eight-five percent (34/40) acknowledged that they stayed away from reminders, 68% (27/40) experienced avoidance reactions 'often', and 22% (9/40) 'sometimes'. The mean score on both the intrusion and the avoidance scales was high, 22.2 and 23.7, respectively. Scores higher than 20 on both subscales indicate that participants experienced such episodes at high levels of frequency.

### **Association between assault characteristics and psychological functioning**

Correlations were computed between all the demographic variables, those taken from the MRQ, and the scale totals. After adjusting  $\alpha$  to .01 for multiple comparisons, three correlations were significant, all relating to suicide attempts. Namely, younger victims ( $r = -.42, p < .01$ ), those with lower academic achievements ( $r = .42, p < .01$ ), and victims who were unemployed ( $r = .40, p = 0.01$ ) were more likely to attempt suicide.

**Logistic regression analysis**

To further investigate attempted suicide, a direct logistic analysis was conducted using SPSS version 12. Attempted suicide was the outcome variable, and education level (ACADEMIC), length of time since assault (ELAPSED), age (AGE), level of violence used during the assault<sup>2</sup> (LEVEL), number of perpetrators (NUMBER), whether or not psychological help was sought after the rape (PSYAFTER), and employment status (employed or not employed; EMPLOYED) were used as predictors. These predictors were chosen as they all correlated (though not all significantly) with attempted suicide. Only one predictor, whether or not psychological help was sought after the rape, was a significant predictor of attempted suicide (see Table 3).

**Table 3.** Final statistics for logistic regression

|          | B      | SE    | Wald. | df | Sig. | Exp(B) |
|----------|--------|-------|-------|----|------|--------|
| ACADEMIC | 3.267  | 2.639 | 1.533 | 1  | .216 | 26.224 |
| ELAPSED  | 0.030  | 0.481 | 0.004 | 1  | .951 | 1.030  |
| LEVEL    | 0.110  | 0.774 | 0.020 | 1  | .887 | 1.117  |
| AGE      | -0.219 | 0.122 | 3.229 | 1  | .072 | 0.803  |
| NUMBER   | -0.952 | 1.880 | 0.257 | 1  | .612 | 0.386  |
| PSYAFTER | 3.385  | 1.559 | 4.716 | 1  | .030 | 29.504 |
| EMPLOYED | -2.241 | 1.440 | 2.422 | 1  | .120 | 0.106  |

**Discussion**

These results support previous reports that male rape survivors display high levels of psychological disturbance and health problems, even years after the assault (e.g. Coxell & King, 1996). Calderwood (1987) suggested that psychological and physical health problems could last for a decade or more after male rape. This appeared to be the case for many of the survivors in the current study.

As predicted, the survivors showed more somatic symptoms, anxiety and insomnia, social dysfunction, and depression than controls. The findings from the WAS partially supported the prediction that the survivors would have more negative assumptions of the world than the controls, with differences on self-worth broadly consistent with the findings of Janoff-Bulman (1989) on female rape survivors. The findings for self-worth were also supported by comparisons between the survivors and controls on the self-esteem scale. There were substantial differences showing that the survivors saw themselves as lacking self-esteem regarding their general competence, their appearance, and in their social lives.

The survivors completed the Impact of event scale, which measures two primary aspects of post-traumatic symptoms, avoidance and intrusion. The majority of survivors endorsed all the items on this scale, at high frequencies, indicating both avoidance and intrusive thoughts about the rape. This is consistent with previous research (Coxell & King, 1996; Myers, 1989). In addition, some of the survivors were suffering serious consequences, including suicide ideation and attempts. Of particular concern was the association between attempting suicide and not seeking psychological help

<sup>2</sup>This was based on the survivors' judgments, measured on a 4-point scale from no force to violent force with weapon.

after rape. It is important for treatment services to reach survivors in order to avoid such events, although many survivors, even if they do seek psychological help, only do so long after the assault (Walker *et al.*, 2005).

It is difficult to determine how representative the sample used was of all male survivors because it was self-selected, comprising those survivors who responded to media advertising. It also comprised a relatively small sample due to difficulties in recruiting participants. Despite advertising extensively for 11 months, only 52 men telephoned to receive a questionnaire, 40 of which completed and returned it. We assume that the lack of response was due to the reluctance of men to come forward and discuss their rape to researchers. Because of these limitations, the results should be taken as not being generalizable to all male rape survivors. Nevertheless, there are implications of these findings for treatment services. There are serious and long-lasting psychological effects of male rape. The serious psychological problems that occur after male rape need to be more widely known, and support services better educated to be able to deal with male survivors.

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