

The Prevalence of Victimization and Violent Behaviour in the Seriously Mentally Ill.

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Abstract

Objective

To determine lifetime rates of different types of victimization in a population of psychiatric inpatients and to examine the associations between a history of victimization and measures of adverse out-come.

Design

A survey of psychiatric inpatients.

Participants and Setting

130 patients with a range of psychiatric diagnoses admitted to the psychiatric ward of a public hospital in Adelaide.

Outcome measures

Lifetime history of victimization, as measured by the Traumatic Antecedents Questionnaire (TAQ). Aggressive feelings and behaviour, as measured by the Aggression Questionnaire and the Past Feelings and Act of Violence Scale (PFAV).

Results

A lifetime history of victimization was reported in 87.7% of patients. Victimization was associated significantly with receipt of the disability support pension and number of previous psychiatric hospitalizations, both measures of more adverse outcome.

Conclusions

The association between high lifetime rates of victimization in psychiatric patients and adverse outcome may have both clinical and policy implications for the long term management of people with mental illness independent of the presenting diagnosis.

Introduction

While general population studies show that trauma exposure is common (Taylor 1997), men and women with mental disorders, particularly more serious mental illness (SMI), are substantially more likely to experience violent victimization than men and women in the general population (Goodman, Salyers & Mueser 2001, Walsh, Moran & Scott 2003). An early study of inpatient men and women found almost half had histories of physical and/or sexual abuse and that 90% had been victimized by family members (Carmen et al 1984). More recent research suggests the life time prevalence of violent victimization among women with SMI may be as high as 97% and between 12 and 75% report multiple traumas (Goodman, Rosenberg, Meuser & Drake, 1997a). Recently, the one-year prevalence of violent victimization was found to be 16% in a UK study of community dwelling patients with psychosis. In this study, those experiencing victimization were more likely to report homelessness, more severe symptoms, substance abuse and previous violent behaviour (Walsh et al. 2003).

The relationship between mental illness and violent behaviour has long been discussed in the psychiatric literature with particular concern about the potential for violence of psychiatric patients (Aldige Hiday, Swanson, Swartz et al. 2001). However the nature of this relationship is confounded by a range of factors above and beyond the patients illness, such as substance abuse and social environment (Swanson, Swartz & Esock 2002; Steadman, Mulvey & Monahan 1998). It is now generally accepted that while the incidence of violence may be higher amongst this population, the majority of mentally ill individuals do not commit violent acts, for example Swanson et al (2002) found 13% of a sample of adults with serious mental illness had assaulted

someone in the previous year. Furthermore, a strong link has been found between violence by an individual and the experience of criminal victimization, especially physical assault in a sample of severely mentally ill in-patients (Aldige Hiday et al 2001, Swanson et al 2002).

Carmen and Rieker (1989) concluded that although the link between victimization and psychiatric illness has long been recognized, there is considerable confusion about its relevance to aetiology, longitudinal course and treatment of mental illness. They suggest that some of that confusion derives from disagreement about the role of victimization in psychiatric illness due to confused conceptual models. There has been some interest in the way symptoms of mental illness can act to increase risk of victimization. For example, limited reality testing, impaired judgment and planning difficulties may serve to increase an individual's vulnerability to abuse or coercive or exploitative sexual relationships (Goodman, Dutton & Harris 1997b). Whatever the type, it is clear that severe traumas often are undetected by mental health workers and are seldom incorporated into treatment (McFarlane, Bookless & Air, 2001; Muenzenmaier, Meyer & Struening, 1993).

Prospective and longitudinal examination of the pathways to, and effect of, victimization of people with severe mental illness is critical to developing effective prevention and treatment strategies (Goodman et al 2001). However, while previous studies of psychiatric patients have found associations between victimization experiences and substance abuse, suicide attempts and previous psychiatric hospitalization (Briere, Woo, Mcrae et al 1997, Read 1998), the nature of the impact of victimization on the longitudinal course of mental illness has not been comprehensively examined. The aims of this study were to establish in an Australian

population, the lifetime prevalence of victimization and aggressive behaviour in a cohort of hospitalised psychiatric patients and to measure the impact of victimization on the longitudinal course of their mental illness and associated disability. Measures of adverse course of illness included number of previous hospital admissions for psychiatric disorder and whether the patient was in receipt of a disability pension.

Method

The study was conducted at the inpatient psychiatric unit of the Queen Elizabeth Hospital in Adelaide, South Australia for 12 months from May 2003. All patients admitted to the unit for longer than two full days during this time, irrespective of diagnosis were eligible to participate in the study, unless they were unable to comprehend written or spoken English or were intellectually impaired. Patients who were admitted to and discharged from the closed unit were also excluded. As soon as the treating team assessed they were well enough to participate, patients were approached by a research assistant and after giving informed consent, they completed an interview and several questionnaires.

Instruments

The Traumatic Antecedents Questionnaire (TAQ), (van der Kolk 2000): This 42 item structured instrument determines the respondent's experience of a range of traumatic events including physical and or sexual victimization occurring during four designated epochs: early childhood (0-6), childhood (7-12), adolescence (13-18) or adulthood.

The Post Traumatic Stress Disorder and Substance Abuse sections of the Composite International Diagnostic Interview (CIDI), (W.H.O.).

Past Feelings and Acts of Violence Scale (PFAV) (Plutchik and van Praag, 1990): a brief (12-item) self report scale designed to assess the presence of angry feelings and tendency to act violently. This scale can discriminate prisoners and violent psychiatric patients from normal controls, non-violent controls and neurological patients.

Aggression Questionnaire (AQ),(Buss & Perry, 1992): a 29 item self report questionnaire measuring four aspects of aggression: physical, verbal, anger and hostility. Participants rated items on a five point Likert scale ranging from 1= extremely characteristic of me, to 5= extremely uncharacteristic of me. The internal consistency of the AQ is very good and it has good test-retest reliability.

PTSD Checklist, (PCL-c), (Weathers et al., 1993) a rating scale for assessing Post Traumatic Stress Disorder, consisting of 17 items corresponding to the DSM-IV symptoms of PTSD. Participants are asked to rate the degree to which they have been bothered by each symptom in the previous month. When examining the psychometric properties of the PCL-c, Blanchard et al (1996) reported an overall correlation of $r(38) = .929$ with the Clinically Administered PTSD Scale.

The suicidality section of the Mini International Neuropsychiatric Interview (MINI) (Sheehan et al 2000): The MINI is a brief structured interview for axis 1 psychiatric disorders using DSM IV criteria. Reliability studies comparing the MINI to the SCID-P show that the MINI has acceptably high validation and reliability scores. Participants in the current study were rated as being at low, moderate or high risk of suicide.

Pension status, along with other sociodemographic data was gathered by self-report. Diagnosis was that recorded in the discharge summary. Information regarding numbers of previous admissions was derived from a statewide database of all psychiatric admissions.

Data Analysis

Results were analyzed using SPSS for Windows (Norusis 1997). Comparisons between patients who had and had not experienced victimization were made on a range of measures using either T tests or chi squared tests (X^2), presenting results, where appropriate, as relative risks (RR) with 95% confidence intervals (CI).

Results:

Recruitment

Between May 2003 and April 2004, 623 patients were admitted to The Queen Elizabeth Hospital psychiatric unit. This inpatient unit has a high turnover of patients due to considerable pressure for admission from the community mental health teams of service. Of those, 207 (33.2%) were ineligible to participate due to either brief admission, admission into the closed unit, inability to speak English or being deemed unsuitable for inclusion by their doctor because of the severity of their illness. Of the remaining 416 patients (66.8%) eligible to participate, 58 (13.9%) were discharged before they could be approached, 192 (46.2%) refused to participate while 166 (39.9%) consented. Of those who gave consent, 36 failed to complete the interview, leaving a final completion rate of 130 (31.3%) of those eligible.

To ensure representativeness of the sample, participants were compared with non participants regarding sex, age and length of stay. There were no significant differences between participants

and non-participants with respect to age and sex, however the non-participants spent significantly less time ($M=14.9$ days, $SD=19.8$) in hospital than the participants ($M=23.5$ days, $SD=24$ $T(177)=-3.75$ $p<.001$).

Demographic Characteristics

The age of the 130 psychiatric inpatient participants ranged from 18 to 65 years with a mean age of 36.8 years ($SD=11.9$). There were 69 (53.1%) males in the sample and 61 (46.9%) females. The most frequent diagnosis was that of psychosis (40%), followed by depression (25%), bipolar disorder (17%) and anxiety disorder (15%). Twenty percent of the sample had never before been admitted to a psychiatric facility, while 62% had two or more previous admissions. The majority of participants were born in Australia (84%), and half currently lived on their own. Sixty one percent of participants were currently on a pension, 85.4% were single or divorced, 65% had not completed high school and 47% had no children. Some form of suicidal ideation was currently experienced by 81.5% of the sample and 62% were in the high-risk category.

Prevalence of Victimization

According to the Traumatic Antecedents Questionnaire (TAQ), a lifetime history of victimization was reported by 87.7% of patients. Eighty four percent of participants had experienced physical assault and 56.9% had experienced sexual assault in their lifetime while only 16 (12.3%) had never experienced any sort of victimization. Twenty eight percent of sexual assault victims and 31% of physical assault victims described the abuse as happening “often” at some point in their life. Seventy two (55.4%) participants had experienced both sexual and physical victimization, the majority of these (70.8%) beginning before the age of 18.

While men in the sample were significantly more likely to experience physical victimization during childhood ($X^2 = 7.5$ RR = 2.8, 95% CI =1.3-5.9, $P=.007$) than women, women were more likely to experience lifetime sexual victimization ($X^2 = 10.5$ RR = 3.4, 95% CI 1.6-7, $P=.001$) and a combination of physical and sexual victimization ($X^2 = 10.1$ RR = 3.2, 95% CI 1.5-6.6, $P=.002$) than men (see Table 1). Of the 64 individuals experiencing sexual victimization before the age of 18, 23 (35.9%) were subsequently sexually re-victimised in adulthood. Twenty one (91.3%) of those re-victimised were female.

According to the PFAV, 66% of participants had committed at least one act of violence towards some one else in the past and 42% had assaulted members of their family. Twenty two percent of the sample had been arrested for violent acts in the past. Participants who had experienced victimization had higher violence scores as measured by the PFAV ($M=6.5$ $SD=4$ vs $M=3.8$ $SD=4$, $T(128)=1.96$, $P=.026$) than those who had not been victimized, and were more likely to be classified as violent according to PFAV criteria ($X^2=6.4$, $RR=4.8$ $95\%CI=1.3-17.8$, $P=.019$). The difference in violent behaviour is emphasised between those who had experienced physical violence during both childhood and adulthood and those who had never experienced physical assault ($X^2=14.2$, $RR=9.7$, $CI=2.6-36.5$, $P=.001$). Participants who had experienced any victimization had higher aggression scores as measured by Aggression Questionnaire ($M=85.3$ $SD=18.4$ vs $M=66.7$ $SD=19.7$, $T(128)=-3.8$, $P<.001$) than those who had not experienced victimization. (seeTable 2)

Victimization and adverse outcome

Participants who had experienced victimization were significantly more likely to be on the disability support pension (64.9% vs 31.3% $X^2=6.7$, $RR=4.1$, $CI=1.3-12.5$, $P=.014$) and had

more previous psychiatric admissions ($M=3.8$, $SD=3.6$ vs $M=1.8$, $SD=2.2$, $T(127)=-2.2$, $P=.032$) than those who had not experienced victimization. Participants who had experienced sexual victimization were also significantly more likely to have been divorced (52.6% vs 26.4% $X^2=8.8$, $RR=3.1$ $CI=1.4-6.6$, $P=.004$).

A modest association was found between history of physical assault and lifetime drug and alcohol dependence or abuse, with those who had a lifetime substance abuse problem almost 3 times more likely to have been physically assaulted. On closer examination however, there were no significant differences between those who had experienced physical victimisation either only as children or only as adults and those who were not victimized in relation to drug abuse history. There was a higher than expected incidence of lifetime drug abuse or dependence among those who experienced physical assault during childhood and were revictimized during adulthood, compared to the rest of the sample (66.7% vs 36.9%, $X^2=11.3$, $RR=3.4$, $CI=1.7-7.1$, $P=.001$). There was a higher incidence of alcohol abuse amongst those who had experienced physical assault during adulthood (59.1% vs 34.1%, $X^2=7$, $RR=2.8$, $CI=1.3-6.0$, $P=.009$) compared with those who were not physically assaulted in adulthood.

According to the CIDI, 52 (40%) participants had suffered from PTSD during their life, with 36 (28%) reporting current symptoms. The incidence of PTSD was significantly higher than expected among the victimized group (46%, $X^2=12.3$, $P<.001$), and was highest amongst those who experienced sexual victimization often during a period of their life. (85.7%, $X^2=8.8$, $P=.003$). Victims who had lifetime incidence of PTSD were more likely to be female ($X^2=6$,

RR=2.6, CI=1.2-5.6, P=.015) and more likely to have made a suicide attempt in the past ($X^2=8.9$, RR=3.6, CI=1.5-8.4, P=.004) than victims who had never suffered from PTSD. (Table 3)

Discussion

This study provides evidence for high lifetime rates of physical and/or sexual victimization in both men and women with psychiatric disorder, with more than half reporting histories of both sexual and physical victimization. Previous studies have reported similar high prevalence rates of victimization, and while some Australian studies have reported high lifetime prevalence of traumatic life events (McFarlane et al 2001) and high rates of recent physical assault (Ash et al 2003) among psychiatric inpatients, this is the first report of prevalence rates of lifetime sexual and physical victimization in psychiatric patients in an Australian population. Of note, more than half of those who were victimized did not have these significant events documented in their case notes, (N=60) and while the study found high rates of post-traumatic stress disorder in this population, this diagnosis was also only rarely reported in the case notes (N=7).

The finding that, a history of victimization, especially physical assault was associated with significantly higher aggression and violence scores is consistent with previously published literature. Those who experienced physical victimization during both childhood and adulthood were most likely to engage in violent behaviour, providing support for the cumulative association between victimization and violence (Swanson et al 2002).

Previous research has found a significant relationship between substance abuse and various types of lifetime victimization experiences among patients in treatment for substance abuse

(Fullilove et al 1993, Ellason et al 1996) and psychiatric patients (Brown & Anderson 1991). Heffernan et al (2000) found opiate use was more common amongst those reporting a history of childhood physical abuse in a sample of psychiatric inpatients. Results in the current study indicate history of drug abuse was most common amongst those who have suffered physical assault in both childhood and adulthood and a history of alcohol abuse was most common amongst those who experienced any physical victimization in adulthood.

While the study was retrospective, there were significant associations between a history of victimization and two variables which indicate a less functional longitudinal natural history of illness, namely, number of previous admissions for psychiatric disorder and being in receipt of a disability pension. This finding is of considerable interest as it highlights the adverse impact which victimization may have on the resilience of a person who has a mental illness. The finding also has implications in terms of the economic cost to the community of providing ongoing health care to people with mental illness. The findings provide evidence that irrespective of whether victimization is aetiologically related to mental illness, such experiences may have a deleterious effect on the longitudinal natural history of mental illness.

Limitations of this study include the relatively low numbers of patients interviewed. Although the sample was representative of the majority of patients admitted to the psychiatric inpatient facility over a twelve month period, the most severely mentally ill patients were by necessity excluded from the study. In addition, the high turn over of patients and social disadvantage of the population appeared to be factors affecting rates of participation and it is unclear whether the victimization experiences of those who participated were representative of the rates of

victimization in the broad patient population. While the reliability of self report of victimization has been questioned in patients with psychiatric disorders, there is evidence to support the accuracy of these reports.(Goodman et al 1999) The TAQ which was utilised for determining lifetime history of victimization, has the advantage of clearly defined epochs which assisted recollection of specific events. Measures of adverse outcome such as pension status were determined via self report and verified from patient case notes, while numbers of previous psychiatric admissions were reliably determined from the state-wide register.

In conclusion, this study highlights that psychiatric patients are not just perpetrators of violence but also the victims of such acts. The increased levels of aggression and hostility in patients with a history of victimization indicates there is likely to be a complex interrelationship between a patient's potential for violence and their past history of being a victim of assault. In an era where there is increased community care of severely ill patients these findings require careful consideration, at the least they suggest those with mental illness are a highly vulnerable group to physical and sexual assault. The association between greater disability as reflected by the rates of pension and more re-hospitalisations suggests the negative impact of care in unsafe community settings. For some, community environments represent a significant risk to poor outcomes.

The high rates, both current and lifetime of PTSD as a consequence of victimization were not addressed as an important comorbidity in these patients. The interaction between PTSD and primary disorder has potential clinical implications that require further exploration, both as a risk factor to the onset of presenting psychosis and a factor impacting on the prognosis. The

presence of PTSD in a substantial number of those patients highlights their ongoing distress and preoccupation with the assault they have experienced. Further, the associated avoidance and numbing are likely to further the disability experienced by those patients.

Future mental health reform policy needs to take account of the fact that the community environments where patients are often placed are associated with high rates of crime and violence. Our findings suggest that such social environments mitigate against resolution of chronic psychiatric illness, and may in fact lead to recidivism and the subsequent escalation of social and economic burdens. These results highlight the need for careful attention to the nature of the social environment a system considers appropriate for a highly vulnerable and disadvantaged group, the mentally ill.

Table 1: Victimization experience by gender.

Variable	Male	Female	df	X²
	N=69	N=61		
	%	%		
Any victimization	92.8	82	1	3.5
Any Physical Victimization	89.9	78.7	1	3.1
Any Sexual Victimization	44.9	73.8	1	10.5**
Both Physical And Sexual Rape	42	70.5	1	10.1**
Childhood Physical Victimization	20.3	55.7	1	17.5**
Childhood Sexual Victimization	76.8	54.1	1	7.5**
Adult Physical Victimization	40.6	62.3	1	5.7*
Adult Sexual Victimization	68.1	68.9	1	.01
Physical Re-victimization	7.2	45.9	1	25.1**
Sexual Re-victimization	55.1	44.3	1	.3
	2.9	34.4	1	25.9**

*P<.05, **P<.01

Table 2: Demographic and clinical characteristics of the sample by victim status.

Variable	No Victimization N=16 N (%)	Any Victimization N=114 N (%)	df	OR (95% CI)
Male	5 (31.2)	64 (56.1)	1	2.8 (.9-8.6)
Female	11 (68.8)	50 (43.9)		
2 or more previous admissions	5 (31.2)	75(65.8)	1	4.23 (1.4-13)**
PTSD	0	52(45.6)		**
Pension	5 (31.3)	74(64.9)	1	4.07 (1.3-12.5)*

*P<.05, **P<.01

Variable	No Victimization N=16 M(SE)	Any Victimization N=114 M (SE)	df	T-stat
Previous Admissions	1.8 (.56)	3.8 (.35)	127	-2.2*
PCL Score	33.5 (2.9)	43.4 (1.4)	127	-2.5*
Physical Aggression	17.1 (1.1)	24 (.79)	128	-3.2**
Anger	14.5 (1.6)	19.6 (.59)	128	-3.0**
Hostility	22 (2.1)	26.7 (.57)	128	-2.7**
Total Aggression	66.7 (4.9)	85.3 (1.7)	128	-3.8**
PFAV	3.8 (.8)	6.5 (.37)	128	-2.6**

*P<.05, **P<.01

Table 3: Characteristics of victims with and without PTSD

Variable	Victim No PTSD N=61	Victim with PTSD N=52	df	
	N (%)	N (%)		
Female	20 (32.8)	29 (55.8)	1	OR=2.6 (1.2-5.6)*
Male	41 (67.2)	23 (44.2)		
Alcohol	29 (47.50)	31 (59.6)		
Drugs	32 (52.5)	28 (53.8)		
Comorbid	17 (27.9)	23 (44.2)		
Married/Divorced	28 (45.9)	38 (73.1)	1	OR=3.2 (1.4-7.1)**
Never married	33 (54.1)	14 (26.9)		
Employment			2	X ² =6.2*
Employed	5 (8.2)	13 (25)		
Unemployed	14 (22.9)	8 (15.4)		
Pension	42 (68.9)	31 (59.6)		
Suicide attempt	33 (54.1)	42 (80.8)	1	OR=3.6 (1.5-8.4)**
Suicide Score	M(SE) 13.7(1.6)	M(SE) 18.5(1.5)	111	T=-2.2*
Physical Ag	23.5(1.1)	24.6(1.2)	111	T=-.72
Verbal Ag.	14.8(.6)	15.1(.61)	111	T=-.39
Anger	18.8(.79)	20.4(.88)	111	T=-1.4
Hostility Score	25.6(.79)	28(.79)	111	T=-2.2*
Aggression	82.7(2.5)	88.2(2.4)	111	T=-1.6
Score				
PFAV Score	5.9(.46)	7.2(.6)	111	T=-1.8

*P<.05, **P<.01

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