

Emotional Responses of Staff to Assault in a Pediatric State Hospital

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In this study, we examined the emotional responses of staff to patient-on-staff assault at a state inpatient psychiatric hospital for children and adolescents. Staff ($n = 93$) completed self-report measures assessing general psychiatric functioning and symptoms of depression and anxiety. Staff assaulted by patients in the past six months ($n = 59$) were compared with those who had not been assaulted ($n = 34$). Direct-care staff were more likely to be assaulted than were other staff. Assaulted staff were more likely to report prior nonsexual assault by a stranger, higher anxiety, more somatic concerns, greater vulnerability and lack of control, and higher levels of impairment at work and were more likely to consider terminating employment than were non-assaulted staff. Our cross-sectional data suggest several differences in assaulted versus non-assaulted staff. Further studies are needed to determine whether differences in anxiety and traumatic events precede assaults or represent antecedent risk factors for being assaulted.

J Am Acad Psychiatry Law 36:360–8, 2008

Violence on psychiatric inpatient units is a frequent and serious problem.¹ In psychiatric health care settings, assault of staff by patients is the most frequent type of assault^{1,2} and has merited study of the relationship between patient and staff characteristics and violence.^{1,3–5} Aggression in the child/adolescent psychiatric inpatient setting has received little attention in the psychiatric literature.^{6,7}

In several studies, the emotional impact of assault by adult patients on staff has been examined in psychiatric settings,^{8–15} but standardized instruments were used in only one.¹⁵ Richter and Berger¹⁵ studied 46 assaulted staff in nine adult hospitals. Fifty percent of those assaulted were women, and the majority (70%) were nurses (the remainder included social workers, physicians, and housekeeping personnel). In this study, assaulted staff were evaluated with two standard PTSD instruments after the assault, at which time 17 percent met criteria for PTSD.

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Twenty percent declined follow-up at two and six months, but of those who were later assessed at the two-month follow-up, nine percent (three individuals) had PTSD. At the six-month follow-up, 11 percent (four individuals) had PTSD. Fifteen percent of the assaulted staff suffered what were characterized as severe injuries (e.g., loss of consciousness or broken bones); 60 percent sustained low or moderately severe injuries (e.g., bruises, scratches, small lacerations, or hematomas); and 11 percent sustained no injuries. Of note, this study did not include comparison data on non-assaulted staff.

There are even less data published about the emotional sequelae of staff who experience or witness an assault by a child or adolescent patient. A search of the MedLine and PsycInfo databases for publications since 1980 on the emotional responses of staff to assaults by pediatric patients, using combinations of the terms trauma, psychological sequelae, PTSD, patient assault, pediatric inpatient, child and adolescent psychiatric inpatient, staff, nursing, and psychiatric unit, yielded very few articles related to this area.^{7,16}

Snow¹⁶ developed a semistructured interview designed to gather data on subject characteristics (e.g., education, experience, and age), frequency of assault and intimidation (verbal assault was included but was kept separate in the data analysis), degree of psychological distress, and subjects' comments on the

topic. Subjects were 20 self-selected child and youth workers in Ontario who responded to advertisements for study participation that were sent to mental health agencies and a local university. It was not clear if any of the respondents had actually worked in a hospital setting (i.e., child psychiatric or general pediatric inpatient unit). Forty percent of respondents reported taking time off from work as a result of physical aggression toward them by a youthful client, and 75 percent reported requiring medical attention. Thirty percent had nightmares, and 90 percent reported feeling fearful of imminent personal (physical) danger at work. Ninety percent met the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R)¹⁷ criteria (by their responses to the semistructured interview) of one or more symptoms of re-experiencing the trauma, while 75 percent met criteria for avoidance or numbing of responsiveness, and 85 percent experienced two or more symptoms of increased arousal. Significant limitations of the study were the small sample size and the self-selection bias.

In a study conducted two years earlier in the same facility, Ryan and colleagues⁷ found that 33 percent of all patients hospitalized in a pediatric psychiatric state hospital were assaultive toward staff over a two-month period. During that time there were 215 assaults. Most of the patients who assaulted staff were not involved in the juvenile justice system, contrary to the prevailing belief of staff and administration before the study. Some type of verbal direction or redirection (usually minor) on the part of staff preceded 68 percent of the assaults. Data were also collected on the sequelae of the assault (physical injuries, emotional effects including feelings toward the assaultive patient, and medical attention sought). Most of the assaulted staff denied a negative emotional response to being assaulted, with 68 percent denying an emotional response to assault producing no physical injury, and 47 percent denying a negative emotional response to assaults producing Level 2 or Level 3 injuries (Ryan EP, *et al.*, manuscript in preparation). Level 2 injuries, as defined by Fotrell,¹⁸ were acts that resulted in minor physical injury, such as a scrape, minor laceration, or bruise; Level 3 injuries resulted in major injury, such as a large laceration, fracture, or injury that required medical attention. We found this denial of an emotional response to assault a curious one, although it has been noted in the literature on violent patients.^{9,19} A desire to learn

more about the psychological symptoms and experience of assaulted staff prompted the current study. We hypothesized that staff who had experienced a physical assault by a patient severe enough to produce an injury would experience more symptoms of depression and anxiousness than staff who had not experienced an assault.

For the purpose of this study, physical aggression/assault was defined as pushing or striking staff with or without a weapon; spitting at staff; or sexual touching of staff. Verbal threats/aggression, self-injury, and property destruction, as well as accidental behavior such as bumping into staff, were not included.

Methods

Participants and Procedures

Approximately 130 employees at a 48-bed pediatric state psychiatric hospital serving children/adolescents aged 4 through 17 were eligible to participate in the study. Many of the staff were employed at the facility during the time that a prospective study of assault against staff was conducted two years earlier.⁷ The percentage of patients identified as "forensic" (denoting some sort of court/legal involvement) at this hospital had fluctuated between 40 and 50 percent over the past three years. All staff with patient care responsibilities or significant patient contact, including psychiatrists ($n = 4$), psychologists ($n = 5$), nurses ($n = 21$), teachers ($n = 15$), social workers ($n = 12$), direct care staff ($n = 61$), and some clerical and administrative personnel ($n = 12$) were solicited during a yearly mandatory training program to participate in the study. Direct care staff provide around the clock supervision of patients, which includes offering counseling support, providing guidance and setting limits when needed, assisting with activities of daily living (e.g., dressing, toileting, cleaning, and eating) if needed, and escorting patients to and from activities. In some instances they may lead or co-lead therapeutic groups or activities, and they provide support and crisis intervention when patients are upset, angry, self-injurious, aggressive, in conflict with others, or otherwise need additional support. When patients are in imminent danger of harming themselves or others, or are in the process of doing so, and when other options for intervention have been exhausted, direct care staff may also use physical containment as a way of ensuring safety. The study comprised ninety-three employees; 74 percent of direct

care staff, 50 percent of nurses, 25 percent of psychiatrists, 20 percent of psychologists, 86 percent of teachers, 83 percent of social workers, and 100 percent of eligible clerical and administrative staff participated.

Before the study was initiated, a protocol delineating the purpose and methods of the study was approved by the hospital's research committee and the Institutional Review Board of the University of Virginia.

Data Collection

All staff members who chose to participate in the study gave their informed consent and were asked to complete a series of self-report instruments. No identifying information was collected to link participants with their information. Instruments completed by the study participants included the following.

The Beck Depression Inventory-II

The Beck Depression Inventory-II (BDI-II)²⁰ is a widely used measure of depressive symptoms. It is designed and normed for use in clinical and nonclinical samples. Responders self-reported the presence of 21 symptoms of depression keyed to DSM-IV criteria on a four-point scale, indicating the presence and intensity of each symptom on the present day and during the preceding two weeks. Items address the range of DSM-IV depressive symptoms, including mood, energy, sleep, appetite, hopelessness, self-image, and suicidal ideation.

The Beck Anxiety Inventory

The Beck Anxiety Inventory (BAI)²¹ is a 21-item self-report measure of subjective, somatic, and panic-related symptoms of anxiety. Like the BDI-2, it asks respondents to rate symptoms over the past two weeks on a four-point scale. The measure evaluates both physiological and psychological elements of anxiety. Items specifically address subjective, somatic, and panic elements of anxiety.

The Brief Symptom Inventory-53

The Brief Symptom Inventory-53 (BSI-53)²² is a 53-item normed, standardized self-report measure of general psychiatric symptomatology and distress. Respondents indicated on a five-point scale the point presence of specific psychiatric symptoms, generating scores for nine scales and three global indices. Results indicate the presence and intensity of symptoms across a wide range of possible psychopathology

and functional areas, including depression, anxiety, hostility, paranoid ideation, psychosis, and interpersonal sensitivity.

The Impact of Events Scale

The Impact of Events Scale (IES)²³ is a 15-item self-report measure in which respondents indicate on a four-point scale the degree of re-experiencing and avoidance symptoms present during the week before assessment. It is designed to address responses to a specific stressor, and in the present study, subjects were asked to respond to the IES items as they pertain to experiencing or witnessing an assault. The measure does not comprehensively assess PTSD symptoms; rather, it focuses on the intrusive and avoidance responses of PTSD.

The Post-traumatic Stress Diagnostic Scale

The Post-traumatic Stress Diagnostic Scale (PTSDS)²⁴ is a 49-item normed, standardized measure of DSM-IV PTSD and related symptoms. This measure also includes an assessment of lifetime exposure to traumatic events, including assaults, childhood sexual abuse, and adult sexual abuse. Respondents provide information about PTSD symptoms with reference to the traumatic event they identify as the most stressful to them.

Results yield information about presence or absence of DSM-IV PTSD symptoms and general information about symptom severity.

The White Bear Suppression Inventory

The White Bear Suppression Inventory (WBSI)²⁵ is a 15-item self-report measure that assesses general (i.e., not PTSD-specific) intrusive thoughts and effortful suppression of thoughts and feelings. It is not a measure of PTSD symptoms, but rather addresses the trait of effortful thought suppression. Respondents indicate on a five-point scale the degree to which they experience general intrusive thoughts or engage in thought-suppressing mental activity.

The Experience of Assault Questionnaire

The Experience of Assault Questionnaire is a 23-item instrument developed by the authors for this study, because there is no current validated instrument that focuses specifically on staff's experience of being assaulted by a patient(s) and/or witnessing the assault of colleagues. (The questionnaire is available from the authors.) Physical assault was defined as pushing or striking a staff member with or without a

weapon; purposefully throwing any object at a staff member, including saliva or bodily fluids; or sexual touching of a staff member. Verbal intimidation, threats, or aggression; self-injury; and property destruction were not included, nor was accidental behavior such as bumping into staff. The questionnaire asked for an estimate of how often in the past six months staff had been assaulted and witnessed the assault of other staff (queried separately). These responses were coded as 0 = 0 times; 1 = 1 to 4 times; 2 = 5 to 9 times; 3 = 10 to 20 times; 4 = 21 to 50 times; and 5 = >50 times. The questionnaire also queried subjects about their perceptions in potentially dangerous situations. For each question, participants rated their agreement on a scale of 1 (not at all) to 5 (extremely). For questions about lack of control, the scale was reversed, so that higher scores reflected lower levels of confidence. Eight questions regarding participants' perceived vulnerability (e.g., "To what degree have you been frightened during an assault or threatened with assault by a patient?") in the workplace were used to create one scale (vulnerability, Cronbach's $\alpha = 0.91$), while four questions about perceived lack of control during a potentially assaultive event (e.g., "In general, during potentially dangerous assaultive situations you have been in at [facility name], how much did you feel in control?") were used to create another scale (lack of control, Cronbach's $\alpha = 0.91$). Scores represent averages of all completed items.

For comparison purposes, the sample was divided into two groups based on whether they reported having experienced an assault at the facility within the past six months. These groups are referred to as assaulted ($n = 59$) and non-assaulted ($n = 34$) for the remainder of the paper. Student's *t*-tests (for continuous data) or Mann-Whitney U tests (for nominal data) were used to compare the two groups, and α was set at $p < .05$ for statistical significance.

Results

Participants

Table 1 summarizes the demographic characteristics of participants in the study by assault status within the past 6 months. More than half (63.4%) of the sample reported being assaulted at the facility in the past six months. As shown, the majority (79%) of the sample was female, and 85 percent had worked at the facility for more than a year. Employment data

Table 1 Demographic Information on Employees by Assault Status Over the Past Six Months

	Total <i>N</i> = 93 (%)	Non-assaulted <i>n</i> = 34 (%)	Assaulted <i>n</i> = 59 (%)
Gender			
Female	73 (78.5)	30 (88.2)	43 (72.9)
Male	20 (21.5)	4 (11.8)	16 (27.1)
Years employed			
<1	14 (15.1)	6 (17.6)	8 (13.6)
1–4	32 (34.4)	7 (20.6)	25 (42.4)
5–9	15 (16.1)	7 (20.6)	8 (13.6)
>9	30 (32.2)	13 (38.2)	17 (29.8)
Discipline			
Direct care	47 (50.5)	8 (23.5)	39 (66.1)*
Nursing	11 (11.8)	3 (8.8)	8 (13.6)
Teacher	12 (12.9)	6 (17.6)	6 (10.2)
Physician	1 (1.1)	0 (0.0)	1 (1.7)
Other†	21 (22.5)	16 (48.5)	5 (8.5)*
Age group served			
12 and under	24 (25.8)	5 (14.7)	19 (33.2)
Over 12	49 (52.7)	14 (41.2)	35 (59.3)
Both	10 (10.8)	7 (20.6)	3 (5.1)*

*Denotes significant difference at $p < .05$ on χ^2 , $df = 1$.

†Other category comprised social workers, a psychologist, and clerical and administrative personnel with significant patient contact. Percentages may not add up to 100 percent because of missing data, but represents percentages within column.

for the year in which the study was completed indicated that women were slightly overrepresented in our sample, as records indicate that overall, 69 percent of all staff eligible to participate were female, and 31 percent were male. No significant differences were found on gender or length of employment by assault status. Direct care staff were more likely to be assaulted than were staff from other disciplines ($\chi^2 = 15$, $df = 1$, $p < .01$), while those in nursing, teaching, medicine, and a category designated in Table 1 as other (which comprised social workers, a psychologist, and clerical and administrative personnel with significant patient contact) were less likely to be assaulted ($\chi^2 = 18$, $df = 1$, $p < .01$). The majority (53%) of the participants dealt primarily with children over the age of 12. Those individuals who described themselves as working with both age groups were less likely to report being assaulted ($\chi^2 = 5$, $df = 1$, $p < .01$).

Of note, about a quarter (26%) of the sample had never experienced an assault at the facility, while 20 percent had experienced more than 50 assaults. Only 17 percent of staff had not witnessed an assault in the past six months, and only 9 percent had never witnessed an assault at work. Staff reporting an assault in the past six months (assaulted group) reported higher rates of prior assaults and had witnessed more assaults

Staff Response to Assault at a Pediatric Facility

Table 2 Ratings of Prior Assaults at Facility by Staff Assault Status Over the Past Six Months

	Total N = 93	Non-assaulted n = 34	Assaulted n = 59	Effect Size Mann Whitney U; p
Mean rating, past six months				
Number of assaults (SD)	1.3 (0.3)	—	2.0 (0.2)	—
Witnessed assaults (SD)	2.0 (0.5)	0.9 (0.1)	2.7 (0.3)	U = 301.0; p < .001
Mean rating, lifetime				
Number of assaults (SD)	2.3 (0.9)	0.9 (0.6)	3.1 (0.6)	U = 327.5; p < .001
Witnessed assaults (SD)	3.1 (0.8)	2.0 (0.8)	3.8 (0.4)	U = 464.5; p < .001

Data represented are means on scale in which 0 = never; 1 = 1–4 times; 2 = 5–9 times; 3 = 10–20 times; 4 = 21–50 times; and 5 = >50 times.

both in the past six months and in their lifetimes than had their non-assaulted peers (Table 2).

Psychological Characteristics by Assault Status

When asked about lifetime exposure to traumatic events on the Post-traumatic Stress Diagnostic Scale (PDS), 85 percent of the sample reported exposure to some form of potentially traumatic event (such as a motor vehicle accident, natural disaster, assault, sexual assault, combat, childhood sexual abuse, or life-threatening illness). The overall reporting of a trauma did not differ by assault status with one exception; assaulted staff were more likely to report having been physically assaulted by a stranger ($\chi^2 = 9$, $df = 1$, $p < .01$).

In comparison to non-assaulted staff, assaulted staff reported higher levels of vulnerability, characterized by fear and anger in potentially dangerous situations and greater lack of confidence in their ability to handle difficult situations (Table 3). Assaulted staff reported higher levels of anxiety as demonstrated by significantly higher scores on the Beck Anxiety Inventory (BAI), as well as more somatic complaints and anxiety on the Brief Symptom Inventory (BSI). Distress was not global across all areas of functioning and appeared specific to anxiety. Assaulted staff exhibited higher scores on the Impact of Events Scale (IES) than non-assaulted staff, indicating that they experienced more negative symptoms related to having seen or experienced an assault within the past week.

Three questions in the Experience of Assault Questionnaire asked staff about job satisfaction. Assaulted staff were more likely to consider terminating employment than were non-assaulted staff and reported a higher level of general impairment at work than did their peers. However, there were no significant differences between the two groups in overall job satisfaction.

Discussion and Conclusions

The results of this study indicate that more than half (63%) of the subjects had reported being assaulted by patients in a pediatric psychiatric hospital in the previous six months. In a different study, Ryan and colleagues⁷ found that 33 percent of all hospitalized youth at the same facility two years earlier were assaultive toward staff. Although the results of two studies at the same hospital cannot necessarily be generalized, they lend additional support to the suggestion that assault of staff by hospitalized youth is a concern and is deserving of greater scrutiny. While there is little research on this phenomenon in the pediatric setting, research on patient assault of staff in adult psychiatric settings indicates that violence in psychiatric settings is a frequent and serious problem and may compromise emotional well-being of staff as well as job satisfaction.^{1,4,11,14,26}

We hypothesized that assaulted staff would report higher levels of psychological distress, specifically anxiety and depression, than non-assaulted staff. However, the results of this study indicated that emotional distress appeared linked to anxiety. Assaulted staff reported higher anxiety and somatic concerns than did non-assaulted staff. Studies of staff assault in the adult literature have also noted persistent anxiety and/or an increased sense of vulnerability among assaulted staff.^{7–9,11,12,14,15,26,27} The one study in which standardized instruments were used found that 17 percent of their subjects (mental health staff assaulted by adults in a psychiatric hospital) met PTSD criteria in the baseline assessment following an assault, and six months later, half of that 17 percent continued to meet diagnostic criteria (Ryan EP *et al.*, manuscript in preparation). Despite significant methodological limitations, the one study in which the emotional response of child care workers was assessed also suggested that persistent anxiety is asso-

Table 3 Psychological Ratings by Assault Status Over the Past Six Months

	Total N = 93	Non-assaulted n = 34	Assaulted n = 59	Effect Size Student's <i>t</i> ; <i>p</i>
Views on dangerous situations				
Level of vulnerability, mean (SD)	3.1 (1.1)	2.6 (1.2)	3.4 (0.8)	<i>t</i> = 3.6; <i>p</i> < .01
Lack of control, mean (SD)	3.1 (1.0)	2.7 (1.1)	3.2 (0.9)	<i>t</i> = 2.0; <i>p</i> < .05
WBSI, mean (SD)	40.4 (11.3)	39.4 (11.8)	41.0 (11.0)	ns
BAI, mean (SD)	10.4 (10.5)	6.0 (7.8)	12.9 (11.1)	<i>t</i> = 3.5; <i>p</i> < .01
BSI scales, mean (SD)				
Somatic (<i>t</i> -score)	52.8 (10.2)	49.4 (8.9)	54.7 (10.5)	<i>t</i> = 2.5; <i>p</i> < .05
Obsessive-compulsive (<i>t</i> -score)	57.5 (11.2)	55.4 (11.3)	58.6 (11.0)	ns
Interpersonal sensitivity (<i>t</i> -score)	52.9 (10.9)	51.1 (10.9)	53.9 (10.8)	ns
Depression (<i>t</i> -score)	53.8 (10.0)	53.4 (10.3)	54.0 (10.0)	ns
Anxiety (<i>t</i> -score)	54.5 (11.0)	49.9 (11.0)	57.1 (10.2)	<i>t</i> = 3.1; <i>p</i> < .01
Hostility (<i>t</i> -score)	53.1 (10.1)	50.3 (10.3)	54.6 (9.7)	ns
Phobic anxiety (<i>t</i> -score)	49.7 (9.5)	49.0 (8.2)	50.1 (10.2)	ns
Paranoid ideation (<i>t</i> -score)	54.7 (11.0)	51.7 (12.0)	56.4 (10.1)	ns
Psychoticism (<i>t</i> -score)	55.1 (9.8)	53.8 (10.1)	55.9 (9.6)	ns
Global severity index (<i>t</i> -score)	54.0 (12.1)	50.6 (14.4)	56.0 (10.1)	ns
Positive symptom total (<i>t</i> -score)	54.6 (11.6)	51.0 (12.9)	56.6 (10.4)	<i>t</i> = 2.1; <i>p</i> < .05
Positive symptom distress index	1.7 (2.9)	2.2 (4.8)	1.4 (0.5)	ns
BSI total score	28.2 (27.3)	24.9 (31.1)	30.1 (25.0)	ns
Impact of events scale, mean (SD)	1.8 (0.7)	1.6 (0.6)	2.0 (0.7)	<i>t</i> = 2.6; <i>p</i> < .05
BDI, mean (SD)	10.6 (9.4)	10.7 (10.8)	10.4 (8.6)	ns
PDS				
Symptom severity score	5.9 (8.1)	5.8 (9.7)	5.9 (7.1)	ns
Number of symptoms endorsed	4.1 (4.4)	3.6 (4.7)	4.4 (4.3)	ns
Level of impairment in functioning	1.4 (2.8)	1.1 (2.6)	1.6 (2.9)	ns
Employee adjustment questionnaire				
Likely to consider job termination?	2.2 (1.2)	1.6 (0.9)	2.6 (1.2)	<i>t</i> = 4.3, <i>p</i> < .01
General level of impairment at work?	2.3 (1.2)	1.7 (0.9)	2.6 (1.2)	<i>t</i> = 4.0, <i>p</i> < .01
Negative impact on job satisfaction?	3.0 (1.1)	2.8 (1.2)	3.2 (1.1)	ns

ns, not significant; *p* > .05.

ciated with physical assault on the job.¹⁶ Notably, levels of distress for both groups were largely within the normal range in our sample, and while there was variability in responses, few individuals reported any distress that reached clinical significance.

It is not surprising that direct care staff, who provide the bulk of the supervision and assistance with activities of daily living, were more frequently assaulted than were staff from other disciplines. Carmel and Hunter²⁸ found that almost all of the injuries from adult patient violence were sustained by nursing staff, who at that time and in that setting provided daily caretaking and limit setting. Other investigators have noted that those staff who are tasked with the responsibility of setting limits, making requests or demands, denying a request, and assisting mentally ill patients in the activities of daily living are most at risk for assault.^{3,8,26} This finding is also consistent with our earlier work,⁷ in which we found verbal redirection to be a common antecedent to assaults on staff.

We were curious as to whether we might find an association between childhood victimization and being the victim of an assault in this study. Little research attention has been devoted to the role that staff factors may play in patient violence, especially within the pediatric population. In this study, there was no association between victimization under age 18 and being the victim of an assault by a patient on the job. However, prior traumatic experiences were prevalent among staff who participated in this study (85%). A potentially important area that has received little attention in the literature is the personal trauma history of staff who choose to work with psychiatric populations, including children. There is some support to indicate that childhood victims of trauma may be vulnerable to revictimization as adults.²⁹⁻³² The role that sexual or physical trauma during childhood, adolescence, or adulthood may play in revictimization is not clear. In a questionnaire completed by 65 nurses (RNs, LPNs, and CNAs) working in a variety of settings, including geriatric, general medi-

cal, medical-surgical, and psychiatric (but not pediatric), Little³² found that childhood abuse correlated with victimization in the workplace. Childhood abuse was not significant in our study, but one may need to inquire about it more specifically and in greater detail than our study's instruments allowed, to obtain accurate information. In this study, there was a relationship between lifetime reporting of assaults by strangers and assault status. To make sense of these findings, more information is needed regarding the prior assault history of employees both inside and outside the workplace.

The findings in this study suggest that there may be something about frequently assaulted staff that makes them vulnerable to assault. Unfortunately, a limitation of this cross-sectional study is that we cannot determine whether these differences were the cause or result of assaults. In this study, assaulted staff reported more anxiety, but we are limited in drawing conclusions as to whether the anxiety preceded the assault or vice versa since the data were all collected at the same time. In addition, the small number of staff in our groups may have limited our ability to detect small differences between groups on any given variable of interest. Because of small sample size, it is particularly difficult to interpret any of our null findings as evidence against hypothesized relationships. We were only able to examine simple relationships between variables and lacked the power to conduct multivariate analyses; therefore the results are subject to Type I and Type II error and warrant further replication. The difficulty in finding a large number of staff who have not experienced an assault only adds support to the importance of this problem and to the need for future studies.

These findings may have implications for training decisions and programing in pediatric psychiatric hospitals. When hiring individuals for staff positions that provide direct care to children and adolescents in psychiatric inpatient settings, prior experiences around assault on the job may be useful to inquire about, and hospital administration may consider targeting specialized training to those staff who have experienced an assault. In addition, frequently assaulted staff may benefit from a closer analysis of those factors that may be conferring additional risk for future assault, such as attitudinal problems, or displaying behavior that may reflect anxiety but be perceived by others as provocative. Verbal direction or redirection, often minor, was found in our previ-

ous study to precede patient assault of staff in 68 percent of pediatric patient assaults on staff.⁷ It is important that results of such analyses be disseminated in such a way as to avoid the appearance of "blaming" staff for their assaults, but be utilized to provide and maintain safer and more therapeutic hospital environments for patients and staff.³³

The finding that assaulted staff (in comparison to non-assaulted staff) reported a higher level of generalized impairment at work and considered terminating employment is particularly interesting in light of the fact that there was no significant difference between the two groups in overall job satisfaction. This may reflect a level of altruism that attracts staff to work with individuals with severe mental illness, particularly children, and the sense that despite the risks to themselves, they are performing a vital service. It may also reflect some denial of the impact of assault and the risk of future assault. Several researchers have noted that nurses working in psychiatric hospitals (performing many of the same duties as direct care staff in this study) have a tendency to minimize and deny the effects of assault.^{9,27}

Some limitations caution against the generalizability of our findings. First, the most under-represented group in our sample was composed of psychiatrists and psychologists. While psychiatrists and psychologists in our study were less likely to be assaulted than assaulted direct care staff, it would be interesting to test whether this is true among other samples with higher representations of these disciplines. In addition, women were slightly over-represented among the participants in this study, and future investigators may want to attempt to recruit larger samples of male staff. The direct care staff employed at this hospital may also be better educated than their counterparts, sometimes referred to as psych techs, in adult facilities. Employment data indicated that 38 percent of direct care staff had a Bachelor's degree or higher, and 14 percent had an Associate's degree. The remaining 48 percent had a high school diploma. Future studies examining the influence of education and training on likelihood of assault would be worthwhile. A further limitation of this single-site study is that the site-specific characteristics noted herein, as well as policies and procedures specific to this hospital, may not generalize to other sites.

Despite the limitations of our study, the prevalence of staff assaults and the finding of greater symp-

toms of anxiousness in assaulted staff are noteworthy. The shortage of pediatric psychiatric beds nationally seems unlikely to improve in the near future, and presently only the most acutely ill children and adolescents will be hospitalized.³⁴ Many of these children have been violent within their homes and communities. The importance of recruiting and maintaining high-quality staff in these settings cannot be overemphasized, and attention should be paid to the occupational hazard of staff assault within the pediatric psychiatric setting in the form of staff development and support programs, as well as continued study into the phenomenon of assault by patients. The effects of several interventions, including critical stress debriefing, have been studied in staff populations exposed to traumatic events, including patient suicide and assault, but the results are mixed. The Assaulted Staff Action Program, a voluntary peer-help, system-wide crisis intervention program to assist assaulted staff cope with the aftermath, has some empirical support for decreasing assaults by adults on staff facility-wide, but has not enjoyed widespread application and requires further study.^{35,36} Flannery³⁶ postulates that a mechanism for decreasing assaults is that staff feel more supported by administration in facilities that have implemented the program, and that when staff feel supported, they feel less anxious, and that in turn is communicated to the patients who also become less anxious; thus, assaults decrease. This is an interesting hypothesis, but requires further study, and is not necessarily generalizable to pediatric settings.

Research into the phenomena of patient assaults of staff and their sequelae in the pediatric psychiatric setting is scant. The findings of this study indicate that assaulted staff reported higher anxiety and somatic concerns (but not depression) than non-assaulted staff and suggest that the trauma history of staff who work in such settings is worthy of additional scrutiny. One recommendation, based on our findings, is for prospective studies with larger sample sizes to evaluate the influence of prior trauma exposure and psychological functioning on workers. The severity and quality of emotional distress must be better understood. Such studies may examine whether specific psychological (prior anxiety levels) or historical risk factors (prior victimization) may be associated with increased risk of assault, or increased psychological symptoms following an assault. Such a study should be longitudinal, from the point of hire

forward, over a specific period, and should utilize standardized instruments.

Acknowledgments

The authors thank the staff and administration of Commonwealth Center for Children and Adolescents for their invaluable assistance.

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Staff Response to Assault at a Pediatric Facility

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