

## Characteristics of Assaultive Patients with Schizophrenia Versus Personality Disorder: Six Year Analysis of the Assaulted Staff Action Program (ASAP)

**REFERENCE:** Flannery, Jr., RB, Rachlin S, Walker AP. Characteristics of assaultive patients with schizophrenia versus personality disorder: six year analysis of the assaulted staff action program. *J Forensic Sci* 2002;47(3):558–561.

**ABSTRACT:** Literature reviews of individual assaultive patients, repetitively violent patients, and restrained assaultive patients document that persons diagnosed with schizophrenia or personality disorder are at the highest risk to become assaultive. While there has been some initial research of possible predictor variables across diagnostic groups, this six-year retrospective study is the first to compare only persons with schizophrenia or personality disorder on basic demographic and the selected clinical variables of history of violence, personal victimization, and substance use disorder. In this study, the variance suggested that persons with schizophrenia and personality disorder were both likely to be assaultive. Assaults by persons with schizophrenia were somewhat proportional to their presence in the population studied. However, personality disordered patients represented a disproportional increase from the population studied. Younger females with a diagnosis of personality disorder and with histories of violence toward others and personal victimization appeared at increased risk to be assaultive and to require restraints. The findings and their implications for safety and clinical care are discussed.

**KEYWORDS:** forensic science, assaults, patient assailants, personality disorder, schizophrenia, violence

Review articles of the studies of individually assaultive (1–4), repetitively assaultive (5), and restrained assaultive (6–8) patients have repeatedly noted that patients with a primary diagnosis of schizophrenia or personality disorder are the most frequent assailants. However, these studies have not compared the differential characteristics of these two groups in order to determine whether there are specific and distinctive precursors to violence within each group.

Notwithstanding, there is a growing literature that has begun to examine demographic and clinical variables across different diagnostic groups to identify potentially key variables for predicting subsequent assaults (9–16). Rossi and his colleagues (14) reported involuntarily admitted females with a diagnosis of paranoid schizophrenia to be more assaultive than men and women in other

diagnostic groups. In a series of studies (9,11,12), Binder and McNeil reported that females with a diagnosis of schizophrenia or mania and a recent history of violence were more assaultive; that assaultive patients with schizophrenia, mania, or organic psychotic conditions had higher levels of thinking disturbance, hostile suspiciousness, and agitation-excitement than other diagnostic groups; and that assaultive patients with schizophrenia, mania, and organic psychotic conditions also had histories of recent violence. Swartz and his colleagues (16) reported that diagnosis was not significantly associated with subsequent assaults whereas substance use disorder and noncompliance with medications were.

Three studies (10,13,15) have compared individuals with schizophrenia, personality disorders, and other diagnoses. Haller and Deluty (10) reported that the more severely assaultive patients were voluntarily admitted and diagnosed with personality disorders. Miller and her colleagues (13) found bipolar and personality disorder patients to be more assaultive than persons with schizophrenia. Soliman and Reza (15) identified frequent medication changes, more PRN medications, diagnoses of personality disorders, length of hospital stays, and past histories of violence as being more associated with assaults than diagnoses of schizophrenia or depression.

The purpose of this six-year, retrospective study is to continue the inquiry into the differential characteristics of assaultive patients by comparing only those with schizophrenia and personality disorder. The study includes basic demographic variables and the three clinical variables most frequently included in the general studies of assaultive patients (1–4): past history of violence, personal victimization (being a victim of violence), and substance use disorder. Based on past research (1–8), this study hypothesized that, while both persons with schizophrenia and personality disorder would be assaultive, persons with schizophrenia would account for a greater percentage of the total assaults.

### Method

#### Subjects

The assaultive subjects were 185 male (51%) and 181 female (49%) patients in the Massachusetts Department of Mental Health (DMH), five state hospitals, three state-operated community mental health centers, one DMH homeless shelter program, two DMH vendor-operated sets of community residences, and one private general hospital that accepted DMH patients. Subjects carried a primary diagnosis of either schizophrenia (49%) or personality dis-

<sup>1</sup> The Massachusetts Department of Mental Health, 25 Staniford Street Boston, MA 02114.

<sup>2</sup> Attending psychiatrist, the Stanford Hospital, Stanford, CT.

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order (21%). The subjects ranged in age from 18 to 76 years with a mean age of 35.2 years (standard deviation ±10.82). The patient population was Caucasian (89%), Black (5%), Hispanic (2%), and from other cultural or ethnic groups (4%). These findings were stable during the six years of this study.

These subjects were a subset of 252 male (48%) and 263 female (50%) subjects who committed 706 assaults in DMH state hospitals and DMH state or vendor-operated community facilities that had an Assaulted Staff Action Program (ASAP) (17) (see below) from April, 1994 to April, 2000. In 14 cases (2%), gender was not documented. Subjects ranged in age from 18 to 75 years with a mean age of 35.60 years (SD = 11.38). The sample was 82% Caucasian, 9% Black, 5% Hispanic, and 4% other social groups. Primary diagnoses were schizophrenia (49%), major affective disorders (14%), and severe personality disorders (21%). Within the sample, 84% had histories of violence toward others, 55% were victims of violence, and 50% had substance use disorders.

This sample was drawn from a total population of 7402 patients. There were 1117 inpatients (15%) and 6,285 community-based patients (85%). This included 4388 male (59%) and 3014 female (41%) patients. Subjects ranged in age from 18 to 79 years with a mean age of 39.97 years (SD = 13.77). The population was 80% Caucasian, 10% Black, 5% Hispanic, and 5% other social groups. Primary diagnoses included schizophrenia (58%), major affective disorders (21%), personality disorders (1%), and deferred or other diagnoses (20%).

*Measures of Assaults*

Four types of assaults were included in this study. Physical assaults were defined as unwanted contact with another person with intent to harm including punching, kicking, slapping, biting, spitting, and throwing objects directly at staff. Sexual assaults were unwanted sexual contacts and included rape, attempted rape, fondling, forced kissing, and exposing. Nonverbal intimidation referred to actions intended to threaten and/or frighten staff, such as pounding on the staff office door, random throwing of objects, and destruction of property. Verbal threats were statements meant to frighten or threaten staff, and included threats against life and property as well as racial slurs and other derogatory comments. Severity of assault was not measured in this study.

*Procedure*

Data were gathered within the context of the Assaulted Staff Action Program (ASAP) (17,18). ASAP is a system-wide, voluntary, peer-help, crisis intervention program for staff victims of patient assaults. ASAP addresses the post-incident psychological sequelae through individual and group crisis interventions, staff victims' support groups, staff victim family crisis intervention, and referrals for individual counseling to specialists in treating trauma victims as needed. ASAP has been associated with providing needed support to staff victims and sharp reductions in levels of assault facility-wide (17,18). Each facility in this study had an active ASAP team during the years of this study.

Demographic and clinical data were gathered on the patient assailants and their staff victims on ASAP report forms at the time of each incident. ASAP team members practiced completing the ASAP report forms until acceptable levels of interrater reliability were obtained. To minimize underreporting (19), the inpatient charge nurse or the residential house director was mandated to complete a DMH incident report, summon ASAP, and report each assault orally at daily staff meetings. The staff victim injury rating

scale in this study included: soft tissue injuries with or without swelling, head, or back injury, bone/tendon/ligament injury, open wounds, spitting, abdominal trauma, and psychological fright with no apparent physical injury. Severity of injuries was not rated.

All data are reported as assault incidents. At times, numbers do not always equal 100% because sometimes the study's variables could not be accurately assessed in the patient's history and sometimes staff victims refused ASAP and refused to identify the patient assailant.

**Results**

From April, 1994, to April 2000, ASAP teams responded to 706 cases of patient assaults. The 257 persons with schizophrenia (49%) were involved in 338 of the total incidents and 109 individuals with personality disorders (21%) in 149 of the total incidents. Persons in other diagnostic groupings were not the subjects of this paper.

Table 1 presents a summary of the demographic and clinical characteristics of the patient assailants in each diagnostic group. Patients with schizophrenia at an average 38.03 years were statistically significantly older than patients with personality disorders with an average 28.55 years ( $t = 7.27; p < .0001$ ). They were statistically significantly more likely to be males whereas assailants with personality disorders were more likely to be females [ $\chi^2 (1) = 26.77; p < .0001$ ]. Subjects in each group scored highly on violence toward others, personal victimization, and substance use disorder. Personality disordered subjects obtained statistically significantly higher scores on violence toward others [ $\chi^2 (1) = 7.39; p < .0001$ ], and personal victimization [ $\chi^2 (1) = 15.09; p < .001$ ].

Patients with schizophrenia committed 308 physical and sexual assaults and 27 nonverbal and verbal threats. Personality-disordered individuals committed 136 physical and sexual assaults and 13 threats. There were no statistically significant differences. Personality-disordered individuals more frequently required restraint procedures, a frequency that was statistically significant [ $\chi^2 (1) = 5.29; p < .02$ ].

No statistically significant differences were obtained among the variables associated with the characteristics of the staff victims of each group of assailants, which included gender of victim, job classification, and PTSD symptoms. Although no statistically significant differences were obtained when comparing all types of physical injuries with psychological fright, a statistically significant

TABLE 1—Characteristics of patient assailants.

Variable	Schizophrenia (N = 338)	Personality Disorder (N = 149)	p
Age	38.03 (± 11.24)	28.55 (± 8.37)	.0001
Gender			
Male	188 (55.6%)	45 (30.2%)	.0001
Female	150 (44.4%)	104 (69.8%)	
Violence to Others	285 (84.3%)	139 (93.3%)	.001
Personal Victimization	194 (57.4%)	113 (75.8%)	.0001
Substance Use Disorder	163 (48.2%)	80 (53.7%)	ns
Type of Assault			
Physical	296 (87.6%)	133 (89.3%)	ns
Sexual	12 (3.6%)	3 (2.0%)	
Nonverbal	6 (1.8%)	2 (1.3%)	
Verbal	21 (6.2%)	11 (7.4%)	
Restraint	115 (34.0%)	67 (45.0%)	.02

difference was obtained when open wounds were compared with all other types of physical injuries and cases of psychological fright. Victims of persons with schizophrenia were twice as likely to sustain open wounds [ $\chi^2(2) = 5.64; p < .006$ ].

## Discussion

The findings of the present study support its hypothesis and are consistent with the previously published review articles of the characteristics of frequent patient assailants as having diagnoses of schizophrenia and personality disorders (1–8). Many of these assaults were serious and resulted in significant medical injury and psychological fright in employee victims.

In this study, while persons with schizophrenia (49%) were the more frequent assailants, their percentage was somewhat similar to the population as a whole (58%). However, the assaultive patients with personality disorder (21%) represented a sharp increase from their presence in the entire population (1%). Compared to their absolute numbers in the population, assaultive personality-disordered individuals represented a seriously disproportionate threat of violence, a finding partially consistent with previous studies (10,13,15).

This study's findings are also partially consistent with the recent literature investigating salient precursors to patient assaults across diagnostic groupings (9–16). These include assaults committed by a greater percentage of female assailants (14,20), a diagnosis of personality disorder (10,13,15), a recent history of violence toward others (9,11–12), and substance use disorder (16).

As the first study to compare only assailants with schizophrenia or personality disorder, this study's findings also included variables that were not previously identified: younger age, increased histories of personal victimization, and increased use of restraint procedures in personality-disordered individuals. This study also found that there were no statistically significant differences in the impact of these assaults on staff victims with the exception of open wounds. This suggests that violence by personality-disordered patients is as serious as that committed by patients with schizophrenia.

The increased presence of female patient assailants in healthcare settings (14,20) reflects a national trend of increasing violence by women (1–4,20–22). Particularly noteworthy was the increased need for restraints in personality-disordered individuals, many of whom were female and who appeared to be continuously assaultive during individual incidents. Several hypotheses present themselves for experimental consideration to explain this increase. It may be that female patients are modeling male assailant behavior (3). Other researchers have suggested that females become assaultive when they fear the loss of needed resources (23). Despair, revenge, and maladaptive attempts at maintaining caring attachments to others have all been proposed as possible additional sources of motivation (24). Since personality-disordered individuals frequently have past histories of violence, it may also be that in some cases that, as they grow older, they no longer find the role of victim acceptable and lash out at the source of the perceived provocation.

The increase in personality-disordered assailants may be an artifact of changes in the general population of patients in this health care system in that inpatients with schizophrenia were commonly discharged to community residential settings, a factor which may have resulted in proportionately more personality-disordered inpatient admissions. However, it is also possible that values in society such as anomic preoccupation with the self, an emphasis on material goods, and the desire for immediate gratification (21) may be shaping citizen coping behavior in seriously maladaptive ways.

This study assessed for the presence of a history of personal victimization, and found that it was highly associated with subsequent violence. This is similar to the findings in earlier studies for a past history of violence toward others (9,11–12) and substance use disorder (16). Because of the high association of each of these variables with subsequent violence, it may be that this triad of variables (violence toward others, personal victimization, substance use disorder), in the presence of other as yet still unknown predictor variables, will prove to be an important component of factors contributing to subsequent patient violence.

One additional aspect of these three traditionally studied clinical variables bears mention. They are actually historical constants and, in that respect, rather like much of the demographic data reported. While two of them, personal victimization and substance abuse, might well have their effects mitigated by appropriate therapeutic interventions, the fact of their occurrence cannot change. What influence this constancy has on the utility for predictive purposes of the clinical variables is unknown at this time.

These preliminary findings require further experimental inquiry to ensure the reliability and validity of the present outcomes. This study included several mixed settings which may have contributed to co-variance in the diagnoses and in the assessment of dangerousness, even though employees are trained in one basic approach. It would be important in future studies to address the issue of setting and to further assess whether the assaultive patient was acutely psychotic, in addition to being behaviorally out of control. Future research would also benefit from the inclusion of various types of control groups as circumstances permit.

The absence in this study and in similar recent research (10,12,13,16) of consistent and clear demographic and clinical predictor variables suggests the general need for more complex person  $\times$  event  $\times$  environment multivariate research (22). Further clarification of immediate situational correlates and their interactive effect may in time yield the presently elusive key predictor variables.

## Implications for Safety and Clinical Care

While further research is being conducted, assaults and the need to restore order and safety will continue. Since the majority of these episodes of behavioral dyscontrol are addressed by mental health workers, administrators may want to consider mental health workers' safety skills (e.g., nonviolent self-defense and restraint procedures) as a facility risk management strategy in their own right. From this perspective, repeated training and supervision for these employees should include the profiles of patients at high risk to become assaultive as well as nonviolent self-defense strategies, restraint, and seclusion procedures as well as common alternatives to restraint and seclusion.

These interventions can be supplemented by routine toxic screening for drugs and alcohol, the utilization of newer medicines for behavioral dyscontrol, and behavioral and forensic consultations as indicated. The need for formal court proceedings may also need to be considered in some instances (25).

Since many patients have the triad of variables associated with subsequent assault, treatment interventions for anger management and adaptive problem-solving skills for unresolved PTSD, and for substance use disorder, should be evaluated and included in the treatment plans of those patients with these presenting problems.

These safety and clinical interventions, coupled with a post-incident ASAP crisis intervention program for staff victims (18), should result in increased safety and enhanced clinical care.

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Additional information and reprint requests:  
 Raymond B. Flannery, Jr., Ph.D.  
 Massachusetts Department of Mental Health  
 25 Staniford Street  
 Boston, MA 02114