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Exploration of Aggression/Violence Among Adult Patients Admitted for Short-term, Acute-care Mental Health Services

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ABSTRACT

Background/Purpose: The purpose of the study was to explore and describe: (a) the prevalence of incidents of aggression and violence among patients, including frequency, kinds and severity of incidents of among patients; target of the aggression; (b) situational factors including time of location and time of event; and (c) staff interventions. We describe the relationships among variables to answer the following research questions: (1) What factors are associated with incidents of aggression and violence, and (2) are factors modifiable?

Methods: The exploratory descriptive study used data collected by retrospective chart review over a three-year period; the dates of January 1, 2011 to December 31, 2013. A medical record was included if it met the following criteria: 1) person ages 18–75 years; 2) admitted to the psychiatric mental care unit (PMCU) during the designated time frame; 3) the length of stay was up to 7 days; and 4) during this time the person made a verbal threat of violence or exhibited violent behavior towards property, self, another patient, or a member of the hospital staff. We examined data for a relationship among score on risk assessment items, sociodemographic factors, and outcome variables. We employed a variety of statistical analytic approaches to describe our data and uncover relationships among variables.

Results: There were 132 incidents of aggression/violence between January 1, 2011 and December 31, 2013Of the 93 patients, 68% (n = 63) were male and 32% (n = 30) were female. Their ages ranged from 20 to 57 years with a mean age of 37 for females and 39 for males. Significant associations were found between type of intervention and patients' admitting diagnoses: X^2 (5, N = 97) = 11.603, p = 0.004. Significant associations were also found with regard to drug history, X^2(1, n = 96) = 4.673, p = 0.03 and history of violence, X^2(1, N = 91) = 7.618, p = 0.006. Key variables were target (the staff) and location (the hallway). Multiple factor analysis yielded inconclusive results, as numerous factors were identified and variable loadings were weak possibly due to the small sample size and high number of relevant variables.

Conclusion: Findings from this study can be used to improve high quality care for hospitalized patients with acute mental health problems. All incidents of aggression/violence cannot realistically be prevented. Staff must stay vigilant for self-safety. The hallway may be modified to reduce visual and auditory stimuli.

Historically, mental disorders have been linked to a greater risk of violence (Nestor, 2002), however, in general most individuals with psychiatric disorders are not violent (Elbogen & al., 2009). In general, the public, including health care providers, might judge the risk of violence differently, depending on the patient's diagnosis.

For example, Pescosolido, Monahan, Link, and al. (1999) surveyed the American public (N = 1444) using standardized vignettes to assess their views of mental illness and treatment approaches. Respondents rated the following groups as very or somewhat likely of doing something violent to others: drug dependence (87.3%), alcohol dependence (70.9%), schizophrenia (60.9%), major depression (33.3%), and troubled (16.8%). The probability of violence was universally overestimated.

Among patients who were hospitalized, aggression and violence have been reported on inpatients admitted to forensic versus non-forensic units, with higher rates observed among patients with forensic legal status. Among this cohort such that 31.4% of patients committed at least 1 violent assault during their hospitalization (Broderick,

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Azizian, Kornbluh, & Warburton, 2015). Less is known about rates among patients on non-forensic units.

The purpose of the study was to examine trends in aggression/violence among patients admitted to the mental health acute care unit of an urban medical center (non-forensic). Specifically it aimed to describe: (a) trends in prevalence of incidents of aggression and violence among patients, including frequency, kinds and severity of incidents of among patients; and target of the incident (i.e., self, other patient, staff, property); and (b) situational factors including month of the year, time of date/shift and location. Our research questions were: what factors are associated with incidents of impulsive/violent acts, and, can any of these factors help to inform the improvement of risk assessment.

Background

Aggressive and violent symptoms may vary from threatening behavior to physical assault and can be seen in patients with various diagnoses including organic psychosis, metabolic diseases, substance use/abuse, personality disorders, developmental disabilities, types of depression, schizophrenia and others (Rocca, Villari, & Bogetto, 2006). Aggression and violence are likely to result from a complex interaction of biological, psychological, and social factors (Siever, 2008). Among psychiatrists involved in the management and treatment of violent behavior, 50% report having been assaulted by a patient at least once (Bourget, el-Guebaly, & Atkinson, 2002). Clinical experiences with violence are not representative of the behaviors of the majority of mentally ill. Flannery, LeVigre, Rego, and Walker (2011) found that staff victims tended to be younger, less formally educated, less experienced and less trained as mental health worker.

According to Szabo, White, Cummings, Wang, and Quanbeck (2015), the efficacy of risk assessment strategies to lower incidence of violence on acute units is unknown. Their meta-analysis revealed that inpatient violence is common at a rate of 32.4% of patients exhibiting aggression and violence across different psychiatric inpatient settings in multiple countries. Forensic settings had higher rates of violence (47.7%) than acute psychiatric wards (22.1%) or general psychiatric wards (26.2%). The highest rates of patient violence were found in the United States (31.92%),. A minority of patients is disproportionately responsible for multiple episodes of violence: approximately 45% of violent patients were involved in more than one incident, with each violent patient, on average, being responsible for 4 incidents (Szabo et al., 2015). These statistics warrant confirmation. Health care providers, including nurses and physicians, working in acute care settings, report direct experiences with aggressive or violent behavior among patients with mental health disorders, therefore understanding this phenomenon is important to securing a safe environment.

Characteristics of Patients at High Risk

Intrinsic variables have been examined as risk factors for aggression and violence. These include the patient's: age, sex, use of substances, psychiatric diagnosis, and history of violence.

Dack, Ross, Papadopoulos, Stewart, and Bowers (2013) conducted a systematic review and meta-analysis of empirical articles and reports of comparison studies of aggression and non-aggression within adult psychiatric in-patient setting. They reported that the factors significantly associated with in-patient aggression included: being younger, male, admitted involuntarily, single marital status, diagnosed with schizophrenia, multiple previous admissions, a history of violence, and a history of substance abuse. These findings were not duplicated in other studies.

Age and Sex

In most reports, two major demographic predictors of violent behavior were male sex and younger age (15 to 24 years) (Grenyer et al., 2013; Rocca et al., 2006). However, in a study conducted in 2009, the authors, Uppal and McMurran, reported that women were significantly more likely to exhibit violence and self-harm (Uppal & McMurran, 2009). This study was conducted in the UK but is important to mention as a caveat for expecting a patient population to be typical. Additional sociodemographic predictors have in the past included: unemployed, uneducated, no supportive social network, and minority (Rocca et al., 2006).

In 2007, an extensive, largely cross-sectional research (Flannery, Marks, Laudani, & Walker, 2007) documented the occurrence of patient assaults on male and female staff. The 15-year longitudinal retrospective study examined same/different gender assaults over time. Since the health care system under study experienced several major policy changes during these years, data were also examined at 5-year intervals to assess the stability of findings across time. Male and female staff were at increased risk from same gender assaults over time in both inpatient and community settings.

Use of Substances

In the MacArthur Violence Risk Assessment Study (Applebaum, Robbins, & Monahan, 2000), the prevalence of violence among those with a major mental disorder who did not abuse substances was indistinguishable from their non-substance abusing neighborhood controls. A concurrent substance abuse disorder doubled the risk of violence. Those with schizophrenia had the lowest occurrence of violence over the course of the year (14.8%), compared to those with a bipolar disorder (22.0%) or major depression (28.5%).

The importance of substance abuse as a risk factor for violence is known. Substance abuse in the context of medication non-compliance is a particularly risky combination and poor insight also may be a factor (Swartz, Swanson, Hiday, & al., 1998). Also, alcohol use has long been associated with aggression. A study by Dang, Hispard, and Chariot (2012) examined the link between acute alcohol use in dependent drinkers and their experience of violent acts as assailants or victims. Received and expressed violence was significantly related to alcohol consumption.

Psychiatric Diagnosis

The best known study of risk factors is the NIMH's Epidemiologic Catchment Area (ECA) study, which examined the rates of various psychiatric disorders in a representative sample of 17,803 subjects in five U.S. communities (Swanson, 1994). This study was not initially designed to assess the prevalence of violent behavior, however data on violence were collected for about 7000 of the subjects (40% of the total population (Swanson, 1994)). Although conducted 20 years ago, this study is still cited and valid (Shaw, Hunt, Flynn, & al., 2006). In this study “violence” was narrowly defined as having used a weapon such as a knife or gun in a fight and having become involved, with a person other than a partner or spouse, in more than one fight that came to blows. The study showed that patients with serious mental illness, such as those with schizophrenia, major depression, or bipolar disorder, were two to three times as likely as people without such an illness to be assaultive.

The lifetime prevalence of violence among people with serious mental illness was reported at 16%, as compared with 7% among people without mental illness. However, not all types of psychiatric illness are associated with violence, with the exception of anxiety disorders. Although most people with schizophrenia, major depression, or bipolar disorder do not commit assaultive acts, the presence of such a disorder is associated with an increased risk of violence.

Previous History of Violence

In 1998, violent incidents in inpatient psychiatric settings in Australia (Owen, Tarantello, Jones, & Tennan, 1998) were examined among a group of repeatedly violent patients to better understand the clinical and occupational health significance of repeated violence. Of the 174 patients involved in violent incidents, 20 (12%) were