A LONGITUDINAL STUDY OF DIFFERENCES IN STAFF ASSAULTS BY RESPONSES TO RESIDENTS IN A FORENSIC HOSPITAL

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

A LONGITUDINAL STUDY OF DIFFERENCES IN STAFF ASSAULTS BY RESPONSES TO RESIDENTS IN A FORENSIC HOSPITAL

Presented by Dean Marth,

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A LONGITUDINAL STUDY OF DIFFERENCES IN STAFF ASSAULTS BY RESPONSES TO RESIDENTS IN A FORENSIC HOSPITAL

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ABSTRACT

This study examined psychiatric hospital staff interaction behaviors that have been found to increase the risk of client assault. Observers utilizing the Staff-Resident Interaction Chronograph instrument collected data related to interactions between hospital staff and clients on six social learning wards in a Midwestern forensic psychiatric hospital over a ten year period. Limit setting, activity demand, and denial of requests have been identified in the literature as staff behaviors that increase risk of assault by clients. Utilizing independent samples t-tests, this study compared rates of engagement in these types of interactions between assaulted staff members and non-assaulted staff members to determine if there are significant differences between the two groups. Results show that staff members who engage in limit setting, activity demand, and denial of request are assaulted more frequently than those who don't. This study addresses the need for utilization of a reliable and valid instrument to determine if staff member responses to client behaviors increases risk of client assault.

Chapter 1: Introduction

Violence against mental health staff in mental health settings is a severe problem with grave consequences. Work place assaults negatively effect organizations, institutions and personnel on several levels. There is the cost of dealing with assaults. Assaults cause physical injuries and create emotional and mental health issues for the assaulted, and cause morale problems with the staff at large (Barlow, Grenyer, & Ilkiw-Lavalle, 2000; Fagan-Pryor, Haber, Dunlap, Nall, Stanley, & Wolpert, 2003; Flannery, 2005). Occupational dangers related to inpatient mental health settings are particularly acute. Considering only the United States, the risk of injury in public mental health hospitals outweighs injury rates from agriculture, mining, manufacturing, transportation, and construction combined (Dinwiddie & Briska, 2004). Aggression is currently one of the primary reasons for admission to psychiatric units (Barlow et al., 2000) and, perhaps not surprisingly, there is evidence that the prevalence of aggression in psychiatric hospitals has increased (Daffern & Howells, 2002). Indeed, it is one of the most significant challenges to treatment and wellness facing mental health workers (Bjorkly, 1999).

Conceptual Framework

Social learning theory posits that aggression relates to emotional arousal, not internal cues, and depends upon a number of external influences (Richter & Whittington, 2005; Bandura, 1973). In the context of this study, staff instructions to clients would constitute an external influence that could instigate assaultive reactions from individuals with mental health problems (Richter & Whittington, 2005). In other words, if aggression

results from external influences, social learning theory could explain how mental health staff can instigate and/or provoke emotional arousal, specifically anger that leads to their being assaulted by psychiatric patients.

Background/Rationale

Administrators and staff members working in forensic mental health hospitals must work in an environment where clients are predominately frustrated and upset with being hospitalized. In an effort to allow for consistency and order among this diverse population of individuals, policies and rules, including a set schedule of activities, are drawn up to best serve the clients for the duration of their treatment. Staff members must follow and enforce these policies and rules or face possible employment sanctions. Consequently, staff members often must approach clients and ask them to stop doing something (limit setting), ask them to begin an activity they are not doing (activity demand), or say no to their requests (denial of request).

Staff members set limits when they ask clients to stop what they are doing ("stop jumping on your bed"). They may ask clients to begin an activity ("you better get up and go to class"), and/or deny a client's request ("no, you can't have your coffee now"). The potential for violence in mental health hospitals is omnipresent for a number of reasons, but these particular staff responses are thought to be particularly predictive of violent outcomes. Indeed, evidence suggests that when staff members engage in limit setting, activity demand, and denying requests, clients may assault them (Daffern, 2007).

Several researchers have identified limit setting as a common staff precipitant of assault by clients (Daffern, Howells, & Ogloff, 2007; Flannery, 2007; Quanbeck, McDermott, Lam, Eisenstark, Sokolov, & Scott, 2007; Ilkiw-Lavelle & Grenyer, 2003;

Barlow et al., 2000; Bjorkly, 1999). Other researchers have found that activity demand is a precipitant of assault (Daffern et al., 2007; Quanbeck et al., 2007; Daffern, Mayer, & Martin, 2004). Still other researchers have noted that when staff members deny clients/patients their requests the risk for assault increases (Daffern et al., 2007; Flannery, 2007; Quanbeck et al., 2007; Flannery, Levitre, Laudani, & Walker, 2006; Daffern et al., 2004; Benson, Secker, Bale, Lipsedge, Robinson, & Walker, 2003; Sheridan, Henrion, Robinson, & Baxter, 1990).

Researchers in previous studies have used a variety of methods to assess the extent to which staff behaviors, such as limit setting, activity demand, and denial of requests, have resulted in assaults on mental health workers. However, no studies have utilized an observation-based instrument such as the Staff-Resident Interaction Chronograph (SRIC) which requires independent, non-interactive observers to code staff member behaviors as they interact with clients/patients. Data gathered utilizing this instrument by direct observation reveals more accurate information about which responses staff members choose to particular resident behaviors instead of relying on self-report. Much more information is needed to understand the extent to which specific staff behaviors increase their risk of being assaulted.

Need for the Study

The Bureau of Labor Statistics (BLS) data indicate that in 2000, 48% of occupation related violence occurred in the fields of social service and health care (OSHA, 2004). BLS measures the number of injury assaults (involving days away from work) per 10,000. Incidence rates are as follows: (a) private sector overall (2.0); (b) health service workers overall (9.3); (c) social service workers (15.0); and (d) nurses and

personal care facility workers (25.0) (OSHA, 2004). These statistics indicate that social service workers, nurses, and personal care facility workers are faced with significant risk of job-related violence.

According to the Department of Justice's National Crime Victimization Survey for 1993 to 1999, the average annual rate for non-fatal violent workplace assaults per 1,000 workers breaks down this way: (a) all occupations (12.6); (b) physicians (16.2); (c) nurses (21.9); (d) mental health professionals (68.2); (e) mental health custodial workers (69.0) (OSHA, 2004). The Occupational Safety and Health Administration (OSHA) is a division of the Federal Department of Labor and exists to reduce workplace injuries and deaths. Appelbaum and Dimieri (1995) indicate that the chance for assault of the average psychiatric facility staff member is between one-in-three per year to 1.4 assaults per staff each year.

Statement of Purpose

The purpose of this study is to examine staff responses to residents' behavior in a Midwestern forensic hospital community utilizing archived data collected over a ten-year period of time. The following research questions were used to guide this study:

1) What are the characteristics of staff by age, experience, and gender?

2) What is the mean hourly rate at which staff members use limit setting, activity demand, and denial of request in response to resident's behavior?

3) To what extent do assaulted staff members engage in limit setting, activity demand, and denial of request more frequently than non-assaulted staff members?

Variables

Variables chosen for this research relate to specific staff responses to client behaviors and whether staff had been assaulted or not.

Hypothesis

The following hypothesis will be tested at the .05 level of significance via independent samples t-test: Staff members who are assaulted engage in limit setting, activity demand and denial of request more frequently than staff members who have never been assaulted.

Assumptions, Limitations and Delimitations

An assumption of this study is that limit setting, activity demand, and denial of request are a necessary part of working with clients in an inpatient setting. The degree to which they are perceived as aversive is based on clients' perception that staff members are talking down to them. Staff members have a number of options relating to the execution of limit setting, activity demand, and denial of request that include expressing empathy, offering alternative solutions, or engaging in collaborative problem solving with the client. Another assumption is that staff members are not intentionally choosing aversive behaviors. Unlike other research that focuses on historical events and unchangeable characteristics such as age and gender to predict risk of assault, this study explores interactions between staff members and clients. This study explores interactions between staff members and clients unlike other research that focuses on historical events and unchangeable characteristics such as age and gender to predict risk of assault. The advantage of considering dynamic rather than static predictors of assault, is that if an association is found with a dynamic factor (in staff/client interactions), it is possible to intervene in order to reduce the risk of future assaults. For example, educating staff about

the kinds of interactions with clients that are more likely to lead to assault would be an integral part of training staff in how to avoid being assaulted.

A limitation of the methodology of the study does not allow for the definitive determination of the direction of causation. The literature suggests that interactions perceived by residents as aversive are associated with assaults of staff by clients, but staff members, having been subjected in the past to assaults by residents, could choose responses that are perceived as more aversive by residents. Further, generalizability of findings is limited without sampling other institutions or mental health outpatient settings, which could be the focus of continued research in this area.

This study was delimited to direct care staff members who have worked on Social Learning wards from 1997 to 2007 at a Midwestern forensic hospital covering three security levels. Data was not collected from other facilities for comparison.

Definitions

Staff-Resident Interaction Chronograph (SRIC). The SRIC is an observation-based instrument originally intended to assess the fidelity of staff member interactions for piloted social learning programs (SLP) and was compared against milieu programs. Its use continues on SLP wards to evaluate the quality of staff member interactions with clients. This instrument examines the interactions between staff members and clients. It requires the use of independent, non-interactive observers who code specific staff member responses to client behaviors on a 21 x 5 matrix. During one ten minute period an observer codes, based on specific criteria, all responses to client behaviors a staff member is engages in. The SRIC lists 21 choices for staff member behaviors in functional relation to five client behaviors.

Assault. An assault is an intentional infliction of any injury upon another person. It includes serious physical injury requiring immediate medical attention or hospitalization; minor injury requiring routine minor first aid (such as disinfection and bandage); or physical contact such as pushing, hair pulling, pinching or slapping not resulting in injury. The standard is whether the assault was intentional or not.

Social Learning Program (SLP). The social learning program is a comprehensive approach to rehabilitation for individuals with the most disabling problems resulting from severe mental disorders. It incorporates an integrated network of learning-based clinical interventions along with a wide variety of skills-training components applied by all staff during all patient waking hours (Menditto, 2002; Menditto, Stuve, & Beck, 2000; Menditto, Valdes, & Beck, 1994; Paul, Stuve, & Menditto, 1997).

Forensic Hospital. The term forensic implies that admission to this hospital involves the legal system and specific security levels have been created. This forensic hospital is a 505-bed, Medicare certified, Joint Commission accredited, long-term inpatient forensic treatment facility in the Midwest. Currently, on six wards spread across maximum, medium and minimum security, a Social-Learning Program (SLP) based on Paul and Lentz (1977) has been implemented to treat severely and persistently disabled individuals with diagnoses of schizophrenia or other psychotic disorders. The SLP uses specially tailored teaching techniques to assist clients with learning self-care skills, social and vocational skills and ways of controlling assaultive impulses. This program has proven to be the most effective approach to inpatient treatment for such individuals (Paul & Lentz, 1977), and a number of studies documenting the gains made by clients at this Midwestern forensic hospital have been published in professional journals (e.g.,

Menditto, Beck, Stuve, Fisher, Stacy, Logue, & Baldwin, 1996; Menditto, Beck, & Stuve, 2000; Stuve & Menditto, 1999).

Significance of the Study

This study verified that specific interactions by staff members create an increased risk for assault by clients. Policy at the agency level can address this hazard by implementing education aimed at decreasing or replacing these staff behaviors. Other issues related to policies include passage of legislative bills to provide federal grants to create evidenced-based best-practices to reduce assaults in mental health settings.

Social Work is a multifaceted profession creating opportunities to work in many settings with an extremely diverse client base. Therefore, Social Work practice will be greatly enhanced by knowledge of specific staff behaviors that increase risk of assault by clients. Practitioners can avoid specific behaviors within the context of interactions found to have a higher assault risk. The inclusion of evidence-based techniques for increasing worker safety in staff training benefits the employing agency by reducing the frequency of staff injury and the costs of dealing with client assaults upon staff.

Future research opportunities include focusing on other staff responses captured by the Staff-Resident Interaction Chronograph instrument that also contribute to risk potential for assault as well as staff responses that create a barrier to assault. Staff responses that are perceived as collaborative or useful to residents may be considered protective in nature.

This chapter discusses the focus and direction of this research study regarding using an observation-based instrument to determine if staff responses to resident behaviors are associated with staff assaults. Chapter two will highlight literature that

focuses on similar research. Chapters 3, 4, & 5 will provide the methodologies used, the results, a thorough discussion of this study, and implications for practice, research, and policy.

Chapter 2: Literature Review

After establishing the importance of assaults on staff as a subject of empirical investigation, this review will focus on research studies that examine whether interactions between mental health workers and clients/patients put them at risk for being assaulted. Also discussed are the costs of assaults, perceptions of staff and residents regarding the perceived cause of assaults, and methods used by prior researchers to capture these perceptions. The review will then highlight the need for research that utilizes a valid and reliable scale to measure staff/client interactions.

Activities of Mental Health Staff: Risk of Assault by Clients

Much of the research on assaults in psychiatric hospitals initially focused on causes related to diagnostic symptoms within the individual. These included identifying various demographic indicators to predict violence. Flannery et al. (2006) report that for over three decades research has documented assault risk factors as associated with specific demographics such as older male patients with schizophrenia, substance use disorders, younger males and females, patients with personality disorders and histories of violence are in a substantially higher risk category for assaulting others. Many studies have focused specifically on risk factors using instruments to quantify the variables of demographics to determine which are in a high risk category to assault others. Many of these variables such as age, histories of assault, substance use history, gender, etc. are found to be risk factors (Daffern, Howells, Ogloff, & Lee, 2005; Waldheter, Jones, Johnson, & Penn, 2005).

The limitations of focusing on demographic traits include the inability to alter these fixed traits and the inconsistency of associating violence with demographic traits in

general (Secker, Benson Balfe, Lipsedge, Robinson, & Walker, 2004). Daffern et al., (2005) also points out that much of the findings related to demographics are inconsistent and that the same demographic characteristics associated with aggression by psychiatric inpatient clients are associated with aggression in the general population.

Eventually, however, researchers recognized the importance to acknowledging mental health staff responses that place them at risk of assault by clients/patients. Among these researchers Sheridan et al., (1990) listed enforcement of rules, denying privileges, to deny a patient's discharge, transferring a client and denial of request as high potential for violence risk. Quanbeck et al., (2007) further identified seven sub-categories of provocations for assault which result from aversive interpersonal interactions: directed, denied, restrained, rage, argument, disrespected, and bothered. As early as the mid-1970's, Depp (1976) found an increase in frequency of assault by time of day, specifically medication times and meal time which could suggest that as staff members increase demands on residents, assault risk increases. Three specific staff member behaviors seem to stand out among others that put staff members at greater risk for violence by clients. These are limit setting, activity demand, and denial of request.

Limit Setting.

Limit setting is a staff member's request of a patient to stop a particular behavior such as teasing a peer or disturbing others. This is also known as setting limits or setting restrictions. It was identified as a common precipitant to aggression by several researchers: (Ilkiw-Lavalle & Grenyer, 2003; Flannery, 2007; Bjorkly, 1999; Daffern et al., 2007; Quanbeck et al., 2007; Daffern et al., 2004). In a study by Bjorkly (1999), for instance, 64% of assaultive behaviors were found to have been preceded by limit setting

behaviors by staff members. Ilkiw-Lavalle and Grenyer (2003) found that patient's illness, poor communication between clients and staff, and limit setting contributed to aggressive incidents. In a literature review, Flannery (2007) found that limit setting, staff interactions, organic impairment, and psychosis were common precursors to aggression. An attempt to change a resident's unwanted behavior was identified as a precursor to staff member assault in a study by Quanbeck et al., (2007).

Activity Demand.

Activity demand is similar to limit setting but directs a client to do something they are not doing, e.g., telling a sleeping client s/he should get up and take his/her medications. These are all considered behaviors that staff members engage in throughout their shifts that could lead to a heightened risk of resident (Daffern et al., 2004; Daffern et al., 2007). This research raised the question as to whether or not activity demand changes affect assault rates. These findings offered the new perspective that aggression can arise out of the social context.

Denial of Client Request.

Staff members are often in the position to deny a request by a client. Ward programming is organized and segmented by time intervals. In restricted environments, such as an inpatient facility, it is often impossible to grant clients every request because of externally imposed limitations on freedom of movement and limited availability of goods and services. Consequently, denial of request by staff members is also considered a risk factor for assault (Flannery, 2007; Flannery et al., 2006; Daffern et al., 2007; Quanbeck et al., 2007; Sheridan et al., 1990; Benson et al., 2003). Flannery et al. (2006) indicated that denial of services, psychosis, and excessive sensory stimulation were the

most frequently occurring precipitants to aggression in their study. Refusal to grant a patient's request was a precursor to assault in a study by Quanbeck et al. (2007). Of the three factors they identified as motivating inpatient aggression (organized, psychotic, and impulsive), the most frequent type of assault fell into the impulsive category which is defined by interactions with staff members.

Frequency of Assaults on Service Providers

The Bureau of Labor Statistics (BLS) indicates that 69 homicides occurred in the health services between 1996 and 2000, but the vast majority of violence in the workplace is non-fatal (OSHA, 2004). BLS data indicate that that in 2000, 48% of occupation related violence occurred in the fields of social service and health care (OSHA, 2004). BLS measures the number of injury assaults (involving days away from work) per 10,000 and a report in 2000 indicated the following incidence rates: (a) private sector overall (2.0); (b) health service workers overall (9.3); (c) social service workers (15.0); and (d) nurses and personal care facility workers (25.0) (OSHA, 2004). As these figures would indicate, social service workers, nurses, and personal care facility workers are faced with significant violence potential in the workplace.

According to the Department of Justice's National Crime Victimization Survey for 1993 to 1999, the average annual rate for non-fatal violent assaults per 1,000 breaks down this way: (a) all occupations (12.6); (b) physicians (16.2); (c) nurses (21.9); (d) mental health professionals (68.2); (e) mental health custodial workers (69.0) (OSHA, 2004). Appelbaum and Dimieri (1995) indicate that the chance for assault of the average psychiatric facility staff member is between one-in-three per year to 1.4 assaults per staff each year. It is a reasonable assumption, then, that because mental health custodial

workers are the individuals who work on the wards in constant contact with clients increases their exposure to violence potential.

Costs of Client Assaults on Mental Health Staff

Monetary costs for workplace-related assaults have continued to grow each year. The current estimated cost is $4.2 billion per year for work-related injuries (Texas Nurses Association, Resolution on RN Participation on Safety Committees, 2003, as cited in Gadon, Johnstone, & Cooke, 2006). Hunter and Carmel (1992) calculated single year costs from violence in a state-run mental health institution and found that the cost of staff injury in a one year period was $766,290. Ten staff who litigated cost the hospital 68 times the average cost of 124 employee injury cases who did not litigate. The range of cost to the hospital for one incident was from zero dollars to $107,167.

The average cost per injury was $5,719 and the average cost for female staff was twice that of male staff ($8,756 verses $4,379, respectively). Reasons for the differential cost between men and women are not clear. Possible explanations include more serious injuries to female workers, cultural differences in response to injury, responses by caregivers, family, and coworkers related to the injured employee's gender, and the reluctance of injured male employees to seek medical care (Hunter & Carmel, 1992).

Cost estimates are difficult to gauge because of such incalculable issues as loss of morale, recruitment/retention, effects of violence on treatment, and the therapeutic environment, and negative public relations (Hunter & Carmel, 1992). These estimates are grossly understated when accounting for cost inflation since the study was conducted. Given these overwhelming challenges in dealing with aggression in healthcare settings,

research has focused on how to capture the contributing factors and precipitating events of aggression.

Costs to Individuals.

Staff members employed in professions with high potential for violent assault are at increased risk for anxiety, high frustration levels, increased level of vigilance in anticipation of assault, low job satisfaction, assault-related physical injuries, and many other mental health related issues (Flannery, 2007). Staff retention is a significant problem especially with respect to nursing staff. Ito, Eisen, Sederer, Yamada, and Tachimori, (2001) report that it is not necessarily the experience of assault that factors into the prediction of intention to leave, but the perceived risk for assault within the work environment.

Employees may distance themselves from clients if they perceive that their employment situation places them at high risk for assault. Further, Katz and Kirkland (1990) found that staff members who interact less with clients may actually foster environments of violence, particularly when administering medication, placing a client in restraints, and/or setting limits on client behaviors. Over all, workplace aggression affects how employees view themselves, the organization, coworkers, and the clients.

Costs to the Organization.

Forensic psychiatric hospitals have an inherent conflict of interest between maintaining an effective therapeutic environment for its patients on the one hand, and providing adequate security necessary to protect society from individuals with violent histories of the other (Brunt & Rask, 2005). Accordingly, organizations face a number of difficulties dealing with issues of work place violence. Flannery (2007) reports that many

assaults result in permanent disability, medical injury, psychological trauma, medical and legal expense, sick leave utilization, worker's compensation claims, lost productivity and sometimes death.

Absence from work, high staff turnover, loss of experienced staff, illness, and counseling utilization are other costs. Gadon et al. (2006) further identify effects such as damage to the image of the organization, reduction in morale and motivation by staff, and diminished loyalty to the organization, all of which have an additive cost effect. Agencies face a number of limitations with respect to their dwindling financial support from local, state, and federal governments and the costs of dealing with violence further deplete these already scarce resources. Issues arise daily regarding how to best manage the risks of assaultive acts and threats of assault. Litigation resulting from accusations of neglect and responsibility can result in financial ruin from costs of legal representation even if courts rule in favor of the agency. Additionally, secure environments with censuses beyond their capacity are more likely to foster violence through overcrowding and inadequate staff/client coverage ratios.

Appelbaum and Dimieri (1995) indicate that all hospitals are required, under the "general duty clause" (p. 333) of the Occupational Safety and Health Act of 1970 (OSHA), to provide a place of employment that is free of hazards in the workplace that might result in death or serious injury. OSHA has the authority to exact monetary fines and seek criminal enforcement of these statutes. Organizations have the responsibility of protecting both clients in their care and their employees from harm and negligence. This creates a strain on administrative personnel as they endeavor to strike a balance between all opposing interests and continue to provide services as intended.

Costs to Society.

Safety is an extremely important societal concern. Violence is expected to be effectively managed by law enforcement and other professionals. Jails, prisons, and secure mental health settings all house individuals with violent histories. These public agencies operate on funds appropriated from tax revenue to provide specific services to isolate and treat these individuals. Hospitals and out-patient agencies, charged with providing mental health services, also operate mostly on discretionary budgets allotted through tax contributions. It is through this funding that citizens support and expect the use of measures to keep assaults by these individuals minimized and isolated from people in society.

Perceptions about Causes of Client Assaults on Staff

Many studies have focused on the perception of staff members and clients to uncover the perceived cause for assault and to begin developing interventions. Perceived cause research focuses on the interactions between inpatient mental health hospital staff members and patients. As perpetrators, victims, and witnesses were subjected to various methods for collecting precipitant data, findings tend to support concerns that other variables external to the patient contribute to assaults on staff (Sheridan et al., 1990; Crowner, Peric, Stepcic, & Lee, 2005; Shepard & Lavendar, 1999).

Perceptions of what initiated an assault on mental health staff varied depending on who was asked. These studies have originated from the United States, Australia, Sweden, Norway, and the United Kingdom representing global concern for the reduction of violence in health care settings. The perceived cause literature utilizes a framework of

concepts to better address causes and influences of assault (Daffern & Howells, 2002; Daffern et al., 2007).

Measuring Perceptions about Assaults on Mental Health Workers

Researchers have utilized several methods to collect data on the causes of assaults on mental health workers. Those include semi-structured or structured interviews (Sheridan et al., 1990; Shepard & Lavender, 1999; Fagan-Pryor, Haber, Dunlap, Nall, Stanley, & Wolpert, 2003; Benson et al., 2003; Ilkiw-Lavelle & Grenyer, 2003; Secker et al., 2004; Daffern et al., 2007), incident forms and record review (Bjorkly, 1999; Barlow, et al., 2000; Daffern et al., 2004; Flannery et al., 2006;), instruments, questionaires and scales such as the Staff Observation Aggression Scale (SOAS) (Omerov & Edman, 2002; Omerov, Edman, & Wistedt, 2004; Cheung et al., 1997; Ray & Subich, 1998; Daffern et al., 2007; Fagan-Pryor et al., 2003), video taping (Nolan, Czobor, Roy, Platt, Shope, Citrome, & Volavka, 2003; Crowner et al., 2005), and observations (Johnson & Delaney, 2007; Morrison, 1990a; Morrison, 1990b). These authors often utilized combinations of the above mentioned methodologies.

Researchers in the United States, the United Kingdom, and Australia have utilized interviews primarily to gather data in hospital settings. Interviewing subjects to gather information on antecedents of aggression has been an important contribution in establishing other causes for assaults, though interviews have a number of limitations, among them accuracy and interviewer bias. Shepherd and Lavender (1999) reported that hospital incident forms were collected weekly and assaultive behaviors were flagged. Data were collected about the incidents from staff within a three-day period using structured interviews, and then incidents were categorized using a four-point system that

allowed for rating the incidents from minor to very serious incidents. These incidents were also defined in terms of physical and/or verbal aggression, as well as property damage.

The findings indicate that incidents of assault were significantly more likely to be preceded by external rather than internal events (Shepherd & Lavender, 1999). Of the external events, 41% were considered interpersonal and 19% were considered hospital related. External events included activity demands, request denials, enforcing rules by staff, denying patient privileges or requests, denying a discharge, or a transfer to another unit against client wishes. Other studies found similar issues when interviewing staff (Secker et al., 2004), clients and staff (Sheridan et al., 1990; Ilkiw-Lavalle & Grenyer, 2003; Benson et al., 2003; Daffern et al., 2007) and clients only (Fagan-Pryor et al., 2003).

Interview studies involve using a scheduled interview format form which participants are asked to complete. Limitations of studies that utilize interviewing as a means of collecting data include impaired recall of events, low reliability or validity, variance in perceptions of staff by job experience, and the tendency of staff members to blame client assault behaviors on need for medication or poor social skills, whereas clients may perceive interactions as aversive. Shepherd and Lavender (1999) noted a need for observational studies to control for reporting bias.

Data collected from reports and incident forms focus on contextual factors related to assaults (Bjorkly, 1999; Barlow et al., 2000; Daffern et al., 2004; Flannery et al., 2006). Those include data such as time of day, month, ward, type of aggression, gender and age of aggressor, type of injury, characteristics of the victim, self-reports by

perpetrator, victim, and witnesses. Other factors are staff-patient relationships, ward regime, patient's access to privacy, limit setting, problems with communication, and staff restrictions on patient behavior. Flannery et al. (2006) indicates that chart reviews, patient-staff reports, interviews, observations, and inferences all represent limitations in drawing conclusions about causes. Sampling diversity, poor universal definitions of aggression and lack of standards in listing precipitants of assault also add to the confusion within the perceived cause literature.

Rating scales of various types have been utilized to identify staff and patient perspectives on the causes of client aggression. Omerov et al. (2002; 2004) have compared perceptions of a violent act by having staff complete the *Staff Observation Aggression Scale* (SOAS, Palmstierna & Wistedt, 1987) and interviewing patients. The researchers focused on perceptions of violence and found a large discrepancy between staff and patients' judgment on whether the aggression was provoked. Using the *Management of Aggression and Violence Attitude Scale,* Duxbury and Whittington (2005) found that patients perceived that poor communication and environmental conditions contributed to violence, whereas staff believed mental illness symptoms were the cause of aggression. Cheung, Schweitzer, Tuckwell, and Crowley (1997) using the SOAS and *Ward Atmosphere Scale* (WAS, Moos, 1989**)** found that violence toward staff was more likely due to precipitants than assaults not involving staff, which might suggest that assaults against staff members may be more predictable and more amenable to strategies of prevention. Limitations for this body of research include the willingness and ability of the participants to tell the truth.

Researchers have also focused on video-taping clients to capture antecedents of assaultive acts (Nolan et al., 2003; Crowner et al., 2005). Nolan et al. (2003) categorized assaults into three categories: psychosis, disordered impulse control, and psychopathology. The researchers reported that of nine events that captured aggression, one event definitely confirmed that the victim was provoked. Four of nine occasions confirmed that provocation was not linked to aggression and the four remaining were inconclusive. Difficulties arose related to camera angles missing important information and people blocking the cameras during assaultive events. Crowner et al. (2005) analyzed patient-on-patient attacks with video cameras installed in a day room of a hospital. Behavior cues were not found to be consistent in either study, which supports the perception that violence has many causal variables.

Observational studies have also been used to identify causes of client assaults on staff. Those include: (a) categorizing patients based on perceived reasons for violent behavior (Morrison, 1990b), (b) examining ward structure (Katz & Kirkland, 1990), (c) noting patterns of escalation and de-escalation (Johnson & Delaney, 2007) and (d) identifying traditions of controlling and policing patients (Morrison, 1990a). These studies have limitations as well. Morrison (1990a) reported that the observers were perceived by staff to be patient advocates, and this gives rise to issues about observer bias in collecting data when interacting with witnesses to gather information after a violent incident. Johnson and Delaney (2007) reported that the observers would arrive on the wards and begin interacting with staff by asking about the tone of the ward and problems relating to specific clients. Morrison (1990b) indicated that the researcher observing

clients was seen by the subjects as very interested in their respective situations, which facilitated the collection of data. This again reflects problems related to researcher bias.

Limitations of Research on Client Assaults on Mental Health Staff

While the research in the area of precipitant or perceived cause literature is vast, the limitations are just as widespread. Bjorkly (1999) identified that the definitions of assaults are not consistent. Whether studies factor in only physical aggression or include verbal aggression, threats, and/or property damage can substantially affect the extent to which study results can be generalized. To date, studies have focused on aggressor/victim/witness interviews, chart reviews, video taping, incident/injury reports, use of instruments and scales, focus groups and observation techniques.

All methods rely on the reporter's ability and/or willingness to tell the truth, or on accuracy of recall, which has been the subject of discussion in many perceived cause articles (Morrison, 1990a; Morrison, 1990b; Cheung et al., 1997; Ray & Subich, 1998; Barlow et al., 2000; Quanbeck et al., 2007; Daffern et al., 2007). The studies utilizing video-taping (Nolan et al., 2003; Crowner et al., 2005) found an inability to capture acts of aggression and camera angles failed to allow accurate estimation of precipitant information. Nolan et al. (2003) found one videotaped event, out of a total of nine events, which confirmed the assailant's allegation of being provoked by the victim. Crowner et al. (2005) found that 60% of patient to patient assaults were preceded by at least one type of intrusive or threatening behavior. Morrison (1990a) observed clients on wards until a violent incident occurred then would begin interviewing all parties willing to participate about the perceived cause of the violence. This researcher reported influencing the milieu during observations which raises concerns about bias with respect to data collection. As

an example of researcher bias, one time a client lost a personal article and the staff members interacted with the observer telling them the progress in finding this item. Staff members thought the researcher was a patient advocate. Nolan et al. (2003) identified inter-rater disagreements within their study (Kappa = .24) of 48 incidents of assault.

With these limitations in mind, Whittington and Richter (2005) called for more sophistication related to explanations of assault and violence. Flannery (2005) requests definitions within the literature to be more universally accepted and a standardization of research design. Daffern and Howells (2002) identified a need for a systematic framework for better dealing with the complexities of assault antecedents and contributing variables. Shepherd and Lavender (1999) stated: "clearly it would require an observational study to establish whether under-or-over reporting of external or internal antecedents actually occurred" (p. 166). Reliability of data recorded by staff and clients, related to accounts leading up to an assault, has been questionable at best. Whittington and Wykes (1996) suggest "non-participant observation" (p. 18) to improve reliability. Recommendations by these and other authors have been considered, improved upon, and implemented in this study.

Summary

State-run inpatient facilities have become the last point of destination for persons with severe mental illness and persistent violent tendencies who have histories of failed attempts to better manage their symptoms in other less-restrictive settings (Donat, 2005). This aggregation of clients with violent histories within psychiatric hospitals has posed a significant physical and mental threat to employees within these settings. Violence in healthcare settings has been widely researched both globally and for a number of

decades, but despite the breadth of research in the area of aggression and violence, relatively little is known about the predictors of violence or effective interventions to reduce it. For example, there is little to no empirical evidence that the programs taught to staff which are intended to decrease assaultive behavior are effective in doing so (Morrison, 1992; Whittington & Richter, 2005).

One major problem is that none of the prior studies focus specifically on staff behaviors using a reliable and valid instrument to measure their limit setting, activity demands, and denial of client requests. Specifically, no studies have examined the extent to which those staff behaviors are associated with the frequency of assaults by clients in a forensic hospital. In this regard, this study builds on the "perceived cause" literature that investigates staff/client interactions. However, it is concerned with the responses of staff that precipitate assaults upon them by clients/patients in the hospital. Chapter 3 focuses on the methods that will be used to conduct the study.

Chapter 3: Methods of Study and Data Analysis

Chapter one presented an overview of the study. Chapter two focused on the costs of assaults, the research studies of staff member response to client behaviors that put them at greater risk for assault by clients, and the methods used to conduct these studies. Chapter three discusses the participants, materials, design, and scoring in this study.

Participants

The sample in this study were 805 staff members whose responses to residents on six social learning program (SLP) wards across three security levels of a Midwestern forensic hospital were observed over a ten-year period of time (1997 to 2007). These staff members had also worked at least three months on an SLP ward and were trained in SLP procedures to teach residents skills they need to live successfully in the least restrictive environment in the residential community. The data has been collected through use of instruments designed to evaluate the SLP program from its inception. This study utilized and evaluated the already existing data.

The residents who live in the hospital are individuals whose behavior has become too dangerous for them to live in other settings and, as a result, they need more intensive treatment than can be delivered in a less restrictive environment. The residents may court committed for a 96 hour evaluation admission, admitted Voluntary by Guardian, or as a result of a judge deeming them “not guilty by reason of mental disease or defect” or as “incompetent to stand trial”. The client population utilized in this study is restricted to those individuals admitted to SLP wards who have met the following hospital policy criteria for selection to an SLP ward: the presence of functional psychosis of a severe and persistent nature; the primary diagnosis is not a personality disorder; the patient has been

continuously hospitalized for one year or more or has had repeated hospitalizations with failed community placements; the patient has severe deficits in functioning in the areas of self-care skills, social skills, and/or instrumental role performance; and exhibits high rates of bizarre behavior.

Materials

The Staff-Resident Interaction Chronograph (SRIC, Paul, 1987) is a standardized, direct observational coding instrument that was used to collect data in this study. The SRIC is a 21 x 5 matrix of 21 possible staff responses to 5 types of resident behavior that independent, non-interactive professional observers use to code all behavior of targeted clinical staff members in their functional relationships with clients during 10 sequential one-minute periods of time. During each of the ten minutes, all verbal and nonverbal staff responses to five classes of resident behaviors are coded across 21 categories of responses that are exhaustive, but not mutually exclusive (Paul, 1987; see also Appendix).

The SRIC is an important asset for determining specific staff responses to client behavior, because it is an observation-based instrument not relying on the tenuous nature of self-report instruments. The inter-rater reliability coefficients for individual code scores over 4 years of continuous assessments were between .83 and 1.00. Even when assessments occurred in community settings and other types of hospitals where the observers were unfamiliar with their surroundings, the average inter-rater reliabilities of all SRIC codes, categories, and indexes exceeded .99 (Paul, 1987). The concurrent validity of the SRIC was determined by the extent to which it predicts residential tenure beyond what patient/staff ratios predict (Coleman & Paul, 2001).

Measure of Staff Responses to Residents' Behaviors.

In this study, a panel of experts who have used the SRIC in research and practice over the past 20 years identified nine cells of staff responses to behavior of residents that correspond with 3 staff responses identified in the literature as antecedents to staff assaults by residents. Those three staff responses are (a) limit setting, (b) activity demand, and (c) denial of request. Table 1 shows the nine cells on the SRIC that experts agree reflect a staff limit setting response (LS), activity demand response (AD), denial of request response (DR), or combination of staff responses.

Table 1.

Nine Cells from the SRIC Instrument Corresponding to Limit Setting, Activity Demand, and Denial of Request

	Staff Response		
Resident behavior	Negative verbal (NV)	Positive statement (PS)	Negative non-social (NNS)
Appropriate (AP)			LS/DR
Inappropriate failure (IF)	LS	AD	LS
Inappropriate crazy (IC)	LS	LS/AD	LS
Request (R)	DR		DR

A negative verbal response (NV) occurs when a staff member responds negatively to a resident behavior, responses such as discouragement, reprimands, derogatory remarks, exclamations, or statements relating to the inappropriateness of the behavior in question. Positive oral statements (PS) include persuasion, urging, encouragement, and suggestion, such as "it's time for you get out of bed and take your medication." A negative non-social (NNS) response is recorded when staff members remove positive

objects or goods from clients, actively withhold admittance, or apply some aversive event, such as seclusion or restraints.

By comparison, an appropriate (AP) resident behavior is one that is appropriate in the context of community living, and an inappropriate failure (IF) resident behavior is one that is inappropriate because the resident fails to perform appropriate behaviors required in time, place, and circumstance. Inappropriate crazy (IC) client behaviors are those that are bizarre regardless of time, place, and circumstance. These behaviors also infringe on the rights of others and are performed without appropriate stimuli. Last, a request (R) may be made either verbally or non-verbally, such as by a gesture.

Measure of Assaults.

The major source of information for the assault database is an event-triggered recording form called the "incident and injury" report. Hospital policy regarding completion of this form means that "any employee who observes, discovers, is informed of, or is involved in an incident shall initiate the 'report' as soon as possible after providing for any immediate needs of those involved" (Missouri Department of Mental Health, February 23, 2007, p. 302). In the absence of a supervisor, this employee is also responsible for completing the supervisor's evaluation section of the form. Assaults include the following types of aggression toward staff: (a) serious physical injury to another that requires medical treatment more intensive than minor first aid, such as medical intervention or hospitalization; (b) intentional infliction of physical injury to another that requires no more than routine minor first aid, such as disinfection and bandage; and (c) physical contact, such as pushing, hair pulling, pinching, or slapping, that does not result in injury.

Design

The University of Missouri's Institutional Review Board (IRB) approved the record review of 805 staff member's responses to residents' behavior that were coded by objective observers using nine cells of interactions (Table 1). The survey method allowed for collecting data on staff members' responses to residents' behaviors and for determining the extent to which assaulted and non-assaulted staff members differed in the type of responses they used to address the behaviors of residents. In reviewing the records, data was collected on observations of staff members who had worked on the social learning program (SLP) wards over a 10-year period of time.

The independent variables in the study were the nine combinations of staff response-resident behavior that experts identified on the SRIC as reflecting limit setting, activity demand, denial of request, or some combination of the three responses. The dependent variable in the study is assault of staff members by residents. This allowed for determining the extent to which staff members who were assaulted engaged in more limit setting, activity demand, and denial of request responses to resident behaviors than staff members who were not assaulted.

Scoring and Data Analysis

The number of observations per staff member and the order in which they are observed across observation sessions is determined via representation of staff divided by the actual time they worked on the floor. Higher order scores from standard weekly SRIC summaries allow for determining total interaction indexes of overall staff activity rates, specifically the amount of staff-resident interactions.

For each of the nine cells, a rate score was calculated based on an average rate of staff response to each resident behavior. For example, if the rate were 0.20 in a given cell, then this represents the average frequency of a particular behavior occurring during one hour or a 20% chance of this behavior occurring on any given hour. In addition to the rate of staff responses to resident behavior, the frequency of assaults was also calculated.

Descriptive statistics were reported in terms of mean rate scores and correlations. T-tests were performed to determine if assaulted staff members are more likely than non-assaulted staff members to engage in each nine staff response-resident behavior situations. After mean rate scores for the constructs of limit setting, activity demand, and denial of requests were derived from rate scores on the nine staff response-resident behavior situations, t-tests were also performed to determine whether assaulted staff engaged in more limit setting, activity demand, and denial of requests than staff who were not assaulted.

Transformation Procedure.

The distribution of scores within the nine cells in the SRIC matrix corresponding to limit setting, activity demand, and denial of request deviated from normality. Therefore, square root transformation was conducted to reduce this non-normality. The transformed SRIC scores of assaulted employees were compared with the transformed SRIC scores of never assaulted employees for comparison.

Chapter 4: Results

Chapters one, two, and three discussed the overview, literature, and the methods used in this study, respectively. This chapter describes and summarizes the statistical analysis used to evaluate the research questions and hypotheses established in the previous chapters. Subsequent to the data screening process, this chapter reports whether results of whether frequently assaulted staff members utilized more limit setting, activity demand, and denial of request than staff members never assaulted.

Data Screening

Prior to the main analysis, all the variables of interest were examined through SPSS 16.0 program for accuracy of data entry, missing values, the normality of distributions, and outliers. The SRIC values for skewness and kurtosis did not fit the assumption of normal distribution underlying proposed analysis. Skewness and kurtosis values were not within the accepted range (i.e., below the absolute value of 2), indicating a non-normal distribution of the scores across all variables of interest. The data followed a Poisson distribution which is expected in rate and frequency data sets.

Research Question 1: What are the characteristics of staff by age, experience, and gender?

Three hundred and ninety-six staff members were assaulted (N=805). There were 28 cases with missing data, so the sample included 465 females and 312 males. The staff members included in the sample (N=777) were 40.7 years of age on average and had worked in the setting for nine years, on average.

The mean age of assaulted staff members was 40.7 years old, which was lower than non-assaulted staff members (45.8 years old). The mean years of experience were

slightly higher for the assaulted staff (9.4 years) compared to the non-assaulted staff members (8.4 years of experience). There were more females in the sample (59.8%) than males (40.2%).

Research Question 2: What is the mean rate at which staff members use limit setting, activity demand, and denial of request in response to resident's behavior?

The mean ratios for the constructs are indicated in table 1. The activity demand response by staff members is utilized more frequently with limit setting occurring slightly less often. Denial of request is utilized far less frequently. Results are shown in Table 1.

Insert Table 2 about here

Research Question 3: To what extent do assaulted staff members engage in limit setting, activity demand, and denial of request more frequently than non-assaulted staff members?

Assaulted staff members engage in more limit setting, activity demand and denial of request responses to client behavior that non-assaulted staff, indicating that utilizing these responses put staff members at greater risk for assault.

Insert Table 3 about here

Chapter 5: Discussion, Conclusions, and Implications

This chapter will discuss the findings presented in chapter 4, present conclusions drawn from the findings, and provide implications for future policy, practice, and research. The first section will discuss the purpose, strengths/limitations, the conceptual framework, and the findings of the analysis. The second section presents conclusions related to the findings in the study. The third section highlights implications for policy, practice, and research related to workplace assaults in forensic hospitals.

Discussion

This study examined staff member responses to resident behaviors in a Midwestern Forensic Hospital over a ten-year period of time in order to determine if specific staff responses place them at increased risk of assault. This study expands the current knowledge base by employing an observational-based, interaction instrument (SRIC) to compare assaulted staff members with never assaulted staff members based upon the frequency with which they use three specific responses.

Caution should be used in generalizing from data collected from one forensic hospital. In the absence of information about residents, it is difficult to know the extent to which aversive interactions cause assaults or assaults could cause aversive interactions. Although this study reports gender, age, and experience of the study participants, these variables are not used in the analysis of assault risk. These and other demographic variables are fixed and unaffected by training or intervention.

Social learning theory suggests that external cues versus internal cues contribute to aggressive human behavior. Staff instructions contribute to assault reactions among individuals with mental health problems (Bandura, 1973; Richter & Whittington, 2005).

Daffern et al. (2007) reported that frustrated and irritable residents are sensitive to perceived slights against them and that their assault behavior functions as a tension reducer. Rather than internal characteristics of residents being responsible for assault reactions, external influences, such as interactions, can provoke residents to assault on mental health staff. The findings in this study are the responses of staff members to resident behaviors, and those responses are associated with increased assaults.

Finding 1.

Staff members who engaged in more limit setting responses to resident behaviors were assaulted more frequently. In a study that utilized reports by nursing staff, a limit setting situation preceded 64% of aggressive incidents (Bjorkly, 1999). This research also indicated that 90% of aggressive behaviors were precipitated by limit setting and poor communication. Ilkiw-Lavalle and Grenyer (2003) used self-report interviews to find that limit setting is one of three main causes of aggressive assault incidents. In a literature review of published studies conducted between 2004 and 2006, Flannery (2007) also found that limit setting and staff interactions with patients frequently precipitated assaults. In sum, the findings in these studies show that limit setting places staff members at risk of assault.

Finding 2.

Staff members who engaged in more activity demand responses to resident behaviors were assaulted more frequently. This finding is consistent with previous studies that have used retrospective data (Depp, 1976), staff interviews (Shepherd & Lavender, 1999), records and self reports (Whittington & Wykes, 1994), verbal reports (Daffern et al., 2007), to focus on whether avoidance of demands was a common precursor to assault.

Daffern et al. (2007) found that the activity demands of staff are perceived by residents as unfair, frustrating, irritating, disrespectful, rude, or annoying.

Finding 3.

Staff members who engaged in more denial of request responses to resident behaviors were assaulted more frequently. This finding is consistent with one in which verbal report and classification methods show that residents behave aggressively to force compliance from a staff member when their request is denied (Daffern et al., 2007). Shepard and Lavender (1999) reported that 60% of antecedents to assault were external to the resident, and of the nearly 16% of antecedents that involved staff-patient interactions, one fourth of assaults were associated with denial of request. In utilizing medical records and interviews, Sheridan et al. (1990) found that resident-staff conflict resulting from denial of request was the event that occurred most frequently. Cheung et al. (1997) used standardized report forms to find that 70% of assault incidents were associated with denial of requests, including 26% that involved denial of requests.

Conclusions

Despite the limitation of the purposive sample in the study, the longitudinal and observational nature of the study are great strengths of the study and expand the knowledge base that addresses assaults of staff in forensic hospitals. Within the context of social learning theory, two conclusions seem plausible based on the results of this study. The major conclusion that can be drawn from the results is that making demands on residents seems to trigger their aggression toward staff members more often than does either limit setting or denial of requests. One explanation of this might be that there are many rules and policies with which staff members must comply in a forensic hospital.

The need of staff members to comply with those rules and policies may result in how they make the demands, such as their voice intonation and non-verbal cues. It may be that residents do not see the logic in the rules and policies, especially if they may have problems with authority figures.

A second conclusion is that, although more limit setting and denial of request responses also result in more resident assaults on staff, these responses seem to trigger resident aggression as well. Standards of behavior have been established for residents of institutions that are modeled after what is acceptable in society. However, staff members are usually in close proximity to residents, which may result in residents perceiving that they are under constant scrutiny. With regard to denial of request, it seems likely that residents would rather participate in the behavior of their choice than to ask a staff member for permission. Even so, the way staff members deny requests may be especially important in reducing the frequency with which residents assault staff members.

Implications for Research, Policy, and Practice

The findings of this study in context with past research have significant implications for building an assault-free environment in state-run forensic hospitals. By identifying and verifying that assaults can be the result of problematic interactions, future research that focuses on education related to communication process, issues, research replication, and other possible risk factors related to interactions will be beneficial. Qualitative research would be useful to determine the need for increased frequency of activity demand responses to resident behaviors in this forensic hospital when compared to limit setting and denial of request. Staff member and resident perspectives could

provide needed clarification as to how limit setting, activity demand, and denial of request responses are delivered and received.

Policy implications include specific training at the agency level to address risk factors and mandatory education in accredited healthcare fields to address violence issues both in university programming and continuing education. State and federal standards could impose minimum requirements by mandating continuing education in this topic area to maintain licensure. As costs related to violence are reduced, monies can be diverted to more direct client care as well as environmental and structural improvements to facilities.

The interest in reducing violence in mental health settings is widespread. To identify the responses of specific interactions that put mental health practitioners as greater risk for violence would benefit the entire healthcare field. Agency supervisors could monitor new and experienced staff in relation to key interaction styles, allowing early prevention to avoid violence. Educational programs would be developed based on key principles to avoid risk of injury and create a better environment for mental health service consumers. Reduction in use of restraint/seclusion applications creates a more collaborative environment for treatment and recovery. Social work values embrace social justice, dignity and worth of the person as well as importance of human relationships which counters violent interactions. Absence of violence also allows for placement of clients in less restrictive environments.

It seems that engagement with the client that promotes collaboration and responsive caring reduces the chance that an interaction is perceived as aversive by the client. The responses of staff members discussed in this study are generally not

recognized as instructional or in collaboration with a client. Since limit setting, activity demand, and denial of request responses by staff members are necessary in forensic settings, the manner in which these responses are carried out could reduce the risk of assault. Understanding resident perspectives, training staff members in empathetic communication, and giving attention to the concepts of the therapeutic relationship may increase cooperative involvement in treatment and rehabilitation.

Recommendation

In general, limit setting, activity demand, and denial of request are widely used and a necessary part of managing residents of long term care facilities, but staff members have a number of options in responding to residents. An improvement in communication might include staff expressing empathy, offering alternate solutions or creating a collaborative problem-solving environment. Considering that residents of an inpatient forensic hospital remain for months or years awaiting determination of the proper time to be moved to a less restrictive environment, many residents consider these wards their homes and staff members as guests. Manners and thoughtful communication with residents is usually most welcome by those residing on these sometimes inhospitable wards.

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APPENDIX

SRIC Summary Matrix

	AP	InF	InC	R	N	
Ignore/NoR						Ignore/NoR
Pos Verbal						Pos Verbal
Neg Verbal		LS	LS	DR		Neg Verbal
Pos Non-Verbal						Pos Non-Verbal
Neg Non-Verbal						Neg Non-Verbal
Pos Statement		AD	LS/AD			Pos Statement
Neg Statement						Neg Statement
Pos Non-Social						Pos Non-Social
Neg Non-Social	LS/DR	LS	LS	DR		Neg Non-Social
Pos Prompt						Pos Prompt
Neg Prompt						Neg Prompt
Pos Grp Reference						Pos Grp Reference
Neg Grp Ref						Neg Grp Ref
Reflect/Clarify						Reflect/Clarify
Suggest Alt						Suggest Alt
Announce						Announce
Instruct/Demonstr						Instruct/Demonstr
Doing With						Doing With
Doing For						Doing For
Physical Force						Physical Force
Attend/Record/Obs						Attend/Record/Obs

Columns (assigned to resident's behavior):

Ap = Appropriate Behavior

InF = Inappropriate Failure (Fails to perform appropriate behavior required by time, place, and circumstance. Also performs appropriate behavior but fails to do so at the correct time, place, and circumstance).

InC = Inappropriate Crazy (Performs bizarre behavior regardless of time, place, and circumstance. It also infringes on the rights of others and the behavior is performed without appropriate stimuli).

R = Request (Appropriate verbal requests and non-verbal gestures toward staff).

N = Neutral (The behavior of the resident is not functionally related to the staff member's activities).

LS = Limit Setting

AD = Activity Demand

DR = Denial of Request

Examples of Staff Behavior Classification

Negative Verbal (staff) to Inappropriate Failure (client)

1) Client Response: In a token-economy program, fails to participate in a token-earning activity.

Staff Response: "You do not get a token" (limit setting)

2) Client Response: Wearing coat but no shoes.

Staff Response: "That's poor you don't have your shoes on-you can't go outside." (limit setting)

Negative Verbal (staff) to Inappropriate Crazy (client)

1) Client Response: Wearing undershirt on head

Staff Response: "You're not supposed to wear your undershirt on your head." (limit setting)

2) Client Response: Tearing pages from a magazine

Staff Response: "You should stop destroying that magazine." (limit setting)

3) Client Response: Screaming and cursing at another client.

Staff Response: Pats on back and says, "You shouldn't yell like that." (limit setting)

4) Client Response: Mumbling to self

Staff Response: “You shouldn’t talk to yourself.” (limit setting)

Negative Verbal (staff) to Request (client)

1) Client Response: “May I have a magazine?”

Staff Response: “You’re really bugging me.” (denial of request)

Positive Statement (staff) to Inappropriate Failure (client)

1) Client Response: Remains in bed after being awakened for the day.

Staff Response: “You should get out of bed.” (activity demand)

2) Client Response: Comes to lunch with dirty hands.

Staff Response: “You’re expected to wash your hands before coming to lunch.” (activity demand)

3) Client Response: Fails to respond to call for medications.

Staff Response: “It is time for you to get your medications.” (activity demand)

Positive Statement (staff) to Inappropriate Crazy (client)

1) Client Response: Puts cigarette out on floor.

Staff Response: “You should use an ashtray.” (activity demand)

2) Client Response: Talking incoherently.

Staff Response: “That talk is crazy….Why don’t you watch TV instead” (limit setting)

Negative Non-Social (staff) to Appropriate (client)

1) Client Response: Appropriately reading a newspaper.

Staff Response: “May I see that?” and takes the newspaper away. (limit setting)

2) Client Response: Arrives on time for an activity.

Staff Resonse: “You can’t come in now.” (denial of request)

Negative Non-Social (staff) to Inappropriate Failure (client)

1) Client Response: Eating applesauce with fingers.

Staff Response: Takes plate away. (limit setting)

2) Client Response: Talks loudly during church service.

Staff Response: Takes client out of the service. (limit setting)

Negative Non-Social (staff) to Inappropriate Crazy (client)

1) Client Response: Stealing bread from lunch tray of other residents at the table.

Staff Response: Takes away lunch and says, “We’ll have no more of that.” (limit setting)

2) Client Response: Hits another resident.

Staff Response: Takes resident to seclusion. (limit setting)

3) Client Response: In a token-economy program, resident breaks a window.

Staff Response: “You are fined 10 tokens.” (limit setting)

Negative Non-Social (staff) to Request (client)

1) Client Response: “Is it all right if I read this magazine?”

Staff Response: Takes magazine from resident’s hand and says, “No it isn’t.” (denial of request)

2) Client Response: In response to other residents leaving the unit for a walk, asks, “May I go with them?”

Staff Response: “No.” (denial of request)

Table 2.

Average Rate of Responses by Staff to a Resident's Behavior

Staff Response	N	Min	Max	Mean	Mean se	SD
Limit Setting	805	.00	3.97	1.013	0.02268	0.6435
Activity Demand	805	.00	3.87	1.119	0.02349	0.6665
Denial of Request	805	.00	1.55	0.271	0.00951	0.2697

Note. Mean values indicate the rate per hour that staff engaged in the particular response.

Table 3.

Comparing Average Response Rate of Assaulted and Non-Assaulted Staff to Resident's Behavior

	Staff Response		
	Limit Setting	Activity Demand	Denial of Request
	Mean	Mean	Mean
Assaulted Staff (N = 398)	1.54	1.82	0.15
Non-Assaulted Staff (N = 407)	1.34*	1.58*	0.14*

Note. Values indicate the rate per hour that staff members engaged in the particular response.
*$p<.05$.

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