Chapter 20
Patient Safety in Behavioral Health

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Introduction

Behavioral health patients pose unique and complex safety challenges in the modern healthcare environment. They may enter the hospital setting with a psychiatric diagnosis in addition to medical comorbidities and/or co-occurring addictive disorders. Therefore, it is imperative that healthcare organizations have well-established policies and procedures to assess safety risks, provide targeted interventions, communicate across disciplines/departments, and include all necessary stakeholders in the process.

This population requires safety planning that goes well beyond the development of ordinary healthcare risk mitigation strategies aimed to prevent unintended harm to all patients. Due to the nature of the illness, there are also risks of intended patient harm to self and/or others.

The threat of suicide is obviously the most serious intentional self-harm to safeguard against in the healthcare continuum. A self-harm analysis of inpatient suicide methods suggests that hospital prevention efforts should be primarily focused on mitigating risks associated with hanging while additional suicide prevention efforts may be best directed toward reducing the risk of suicide immediately following discharge. The Columbia Suicide Rating Scale is intended to be used by individuals who have received training in its administration as the questions are suggested probes for self-harm [1]. The safety risk assessment for self-harm has been updated annually since 2019 by The Joint Commission (TJC) within National Patient Safety

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Goal 15.01.01 which contains Elements of Performance for Environmental Risk Assessment, Validated/Evidenced Based Screening Tools, Validated/Evidenced Based Suicide Risk Assessment Tools, and Safety Planning upon Discharge. [2] TJC classifies an in-hospital suicide attempt as a sentinel event as it is not primarily related to the patient's illness or underlying condition and may result in death, permanent harm of severe temporary harm [3].

The threat of intentional harm to others may pose risks for other patients, visitors, and staff. In general, Workplace Violence (WPV) is a recognized hazard in the healthcare industry [4]. For behavioral health, in particular, one tool for assessing harm to others is the Broset Violence Checklist [5], which is a short-term violence prediction instrument assessing confusion, irritability, boisterousness, verbal threats, physical threats, and attacks on objects as either present or absent [6]. Ironically, the staff member is at risk of experiencing a role reversal from caregiver to victim when such harm occurs in the workplace. As such, healthcare organizations are expending a greater amount of resources to promote staff wellness programs that contemplate the trauma associated with these types of adverse events. According to the Centers for Disease Control and Prevention (CDC), eighty-three percent (83%) of hospitals now offer some type of workplace wellness program [7].

Overall, a culture of good teamwork should be fostered by the organization that places high value on respect, communication, role responsibility, and defined steps to escalate patient safety concerns. In addition, an organization should undertake a comprehensive risk analysis of potential safety pitfalls.

There are two basic analytic approaches that may be used to design safe systems for behavioral health patients. The first is a proactive approach involving multidisciplinary teamwork to examine the process of care from referral to discharge and then considering the possibilities for error at each step. This is a complex process in which different types of staff work together to share expertise, knowledge, and skills to impact on patient care [8]. The second is a reactive approach, or "causal method," involving learning from mistakes through a Root Cause Analysis (RCA). [9] Of course, a cause is not something found but rather constructed from the available evidence. Such causes of failure typically emerge from multiple sources [10]. These causes may range from direct to indirect, or from a true root cause to merely an opportunity for improvement. However, all causes should be appropriately addressed once identified through this process.

In this chapter, the causal method will be used by employing a fishbone model diagram to analyze systems breakdowns relating to (1) Communication; (2) Staffing; (3) Education; (4) Medications; (5) Environment; (6) Patient; (7) Provider; (8) Treatment Team; (9) Unit/Hospital, and (10) Electronic Health Record (EHR) in each of the following cases.

Case Studies

Case Study 1: Self-Harm

Clinical Summary

Beauregard is a 23-year-old male college graduate with a past psychiatric history of major depression recurrent with psychosis and no known history of substance abuse. He was last admitted to inpatient psychiatry a year ago for a suicide attempt in which his mother found him unconscious in the garage after inhaling exhaust fumes. On this occasion, he was brought into the psychiatry emergency room (PER) by Emergency Medical Services (EMS), after his mother called 911 for help. She reported that Beauregard called her at work to say that he was leaving New Jersey and going to Pennsylvania because the neighbors were tormenting him with fireworks. His mother begged EMS to take her son to the hospital because there was no one in Pennsylvania to care for him. Beauregard was evaluated and admitted to inpatient psychiatry for increased paranoia, suspiciousness, anxiousness, restlessness, and depressed mood. His prior medical records were on paper and not available to inpatient physicians through their new electronic health record (EHR). An initial treatment plan was made by the team while Beauregard waited outside the conference room even though he had actively participated in the treatment planning during his prior stays. Due to his increased agitation, he was placed on routine observation and started only on antidepressant medication. The following day, Beauregard took his medications and participated in all assigned activities but was unable to see the social worker who was attending a mandated, full-day in-service training program. He tried to contact his mother but was unable to do so. His mother called the unit to tell them that she had no transportation that evening but would visit Beauregard the next day. That message was taken by the unit clerk but no one informed the patient. She also asked to speak to the physician-in-charge who was too busy at the time and never returned her call. Shortly after visiting hours ended, another patient saw Beauregard hanging by his knotted bed sheets from the loopable door hinge awaiting hospital funding for replacement. An emergency code was initiated but Beauregard was pronounced dead.

Root Cause Analysis

The root cause analysis of the case revealed the following contributory factors (Fig. 20.1):

1. Communication: Despite his mother contacting the unit, Beauregard was never told of the telephone call. Perhaps this knowledge would have decreased his anxiety about her absence during visiting hours. In fact, there was no standard

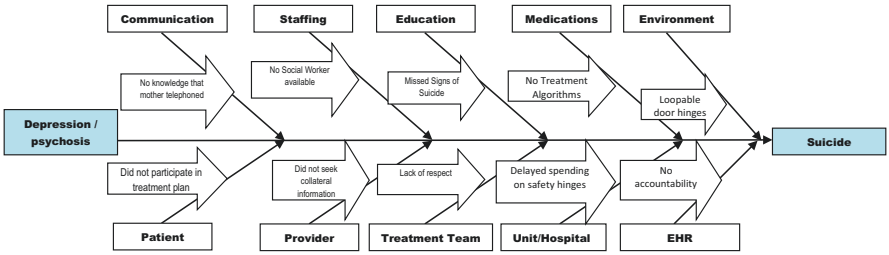

Fig. 20.1 Case 1—Multiple factors leading to a psychotic inpatient committing suicide

work in place to communicate outside information to patients. When creating communication protocols, it is necessary to include all stakeholders so that everyone has the information needed to support the treatment process.

2. Staffing: There was no back-up plan in place to fill the gap when the social worker was off the unit attending a training session. This could have been mitigated by rotating other staff onto the unit or planning the training as two half day sessions instead of one full day.
3. Education: When questioned about why the mother's telephone message was never shared with Beauregard, the clerk answered that she did not think it was as important as other duties. This demonstrated a lack of knowledge about the vital role that family members can play in the recovery effort. Also, staff's lack of understanding about the patient's agitation points to a gap in their clinical training. There is a need to provide ongoing education about the signs of suicide. If that type of training had been available, the staff may have made a better assessment about the potential for suicide in this case.
4. Medications: The patient was not started on anti-psychotics which would have helped with his command auditory hallucinations. It would have been helpful if appropriate treatment guidelines were used by the team.
5. Environment: In the behavioral health environment, it is imperative to minimize suicide risk by conducting an analysis of the potential environmental hazards. High on that list should be an assessment of door handles, hinges, and other loopable hardware. Likewise, close attention should be paid to sheets, blankets, towels, belts, and other items that may be fitted around the neck.
6. Patient: Beauregard was not invited to participate in the development of his treatment plan. However, he was aware of his role in the planning process but did not proactively attempt to have his voice heard by the team. While it is ultimately the team's responsibility to invite the patient into the process, the patient has the right to demand inclusion. This type of proactive participation is reflected in accreditation standards specially designed for promoting non-violent practices in behavioral health settings. [11]
7. Provider: The physician did not return the telephone call to seek out collateral information from Beauregard's mother. The information about his recent high-risk behaviors would have fostered a better understanding of the seriousness of his condition.

8. Treatment team: Treatment team should have included the patient in the planning process, especially because he was right outside the room at the time of discussion. This shows a lack of respect for the patient and his role as a team member.
9. Unit/Hospital: The administration was aware of the dangers associated with the current door hinge but decided to delay the purchase due to the costs. This type of purchase, especially identified through a proactive environmental risk analysis, should be prioritized or an alternate interim solution should be put in place.
10. Medical records: Although the staff were told to contact medical records for old paper charts, in practice no one ever called because there was no accountability built into the system. In such cases, it can be useful to add an attestation checkbox in the EHR that team members must check to affirm that they have received and reviewed the record.

Case Study 2: Harm to Others

Clinical Summary

Herbert is a 25-year-old male with a past history of mental illness, civil commitment, medication non-compliance, substance abuse, and criminally violent-related incarceration. He resides in a homeless shelter and is known to forego available outpatient services.

He was brought to the PER by the Police Department and EMS on a report of threats to shelter peers and staff. Upon presentation, Herbert was highly agitated, paranoid and extremely suspicious in accusing a shelter peer of stealing his jacket.

He was subsequently admitted to the adult psychiatric inpatient unit on a Friday night with a provisional medical clearance pending urine toxicology test results. There were no other follow-up laboratory tests recommended, and no review of prior inpatient records was conducted which would have revealed a history of violent behavior. His EHR behavior plan from a prior admission was viewed by the charge nurse but not shared with other staff assigned to monitor common patient areas.

Herbert was seen by the call physician the following day, who started him on a low dose of neuroleptics and a routine observation schedule, as opposed to a more frequent every 15 min (Q15), observation schedule. He refused his medications throughout the day and was observed pacing, gesturing, occasionally loud and threatening to staff and other patients. Despite this behavior, there was no call for a physician assessment of this aggressive behavior or potential STAT medication.

Early Sunday morning, around 0400, Herbert began to pace the hallway, muttering to himself and to a passing staff member who was conducting 1:1 observation on another patient. After a few minutes of pacing, he suddenly ran to a nurse,

punched her in the face without provocation and ran into his room closing the door behind him.

A code was then called but at that point the crisis team was unable to verbally de-escalate Herbert. He received a medication injection and physical restraints. The nurse was escorted to the ER and treated for a left mandibular fracture and orbital fracture of the face. The nurse filed a complaint with the local police precinct, and Herbert was transferred to a forensic unit for further care and treatment.

Root Cause Analysis

The root cause analysis of the case revealed the following contributory factors (Fig. 20.2):

1. Communication: The charge nurse failed to verbally communicate Herbert's prior violent tendencies and behavior plan to the other staff on the unit. This could have occurred at the time of admission, change of shift handoff, or special huddle to alert staff to a known risk.
2. Staffing: A Q15 observation should have been ordered for Herbert instead of routine observation. This oversight might have been due to either an improper distribution of staff or understaffing for the necessary number of persons needed for observation.
3. Education: Although situational awareness education had been provided for staff, no one reacted to the warning signs of pacing, loud speech, and threats. The staff would also have likely benefited from some ongoing de-escalation training and additional mock code drills. In addition, the details of this case should be added to ongoing data collection and analysis of adverse events to assist in improving future care.
4. Medications: The initial prescription for only neuroleptics was insufficient for Herbert. There was no consideration for the effectiveness of past medications or his present behavior on the unit.
5. Environment: Hallways present a unique challenge as long, narrow corridors tend to have varying traffic patterns, multiple entry points, and limited space for

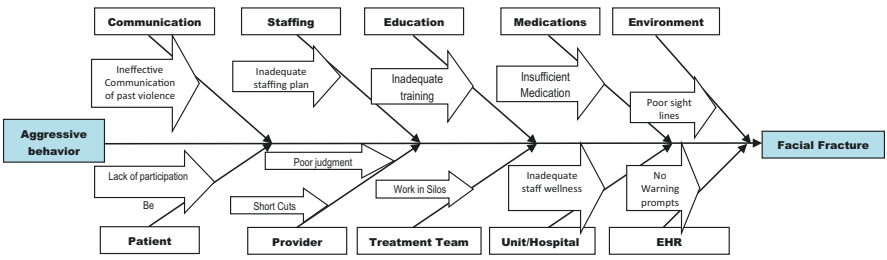

Fig. 20.2 Case 2—Aggressive behavior leading to restraints and patient/staff injury

meaningful engagement. In this case, Herbert should have been directed out of the hallway to a more manageable common area.

6. Patient: Herbert did not request any assistance for his agitation. This is not unexpected given his highly paranoid state of mind but there are times when a patient articulates upset feelings which can then be acted upon by staff. However, the behavior plan did not include this possibility.
7. Provider: The on-call physician failed to conduct a comprehensive evaluation. Oftentimes, clinicians will rely heavily on the "dynamic" presentation of the patient such as erratic behavior, loud speech, and/or threatening movements. The full evaluation includes a standardized test that would have rated Herbert at risk for aggression based on the "static" factors of age, gender, diagnosis, involuntary admission status, past psychiatric history including incidents of violence.
8. Treatment team: Herbert was clearly agitated and aggressive throughout his brief stay. This type of behavior should have been noticed by anyone on the treatment team early on and de-escalation techniques employed to redirect the behavior. There was a silo approach to tasks that was ineffective in managing the therapeutic milieu.
9. Unit/Hospital: The hospital could continue to build on its staff wellness efforts. Since this case extended beyond the hospital to the local police, the staff member should continue to be supported throughout any legal procedures.
10. Medical record: The medical record held the pertinent information that would lead a reasonable reader to be alert for harm to others. However, it did not have a proactive alert to direct an alternate course of action that could have averted this assault.

Discussion

The cases described above highlight some of the typical harm risks encountered in behavioral health settings. In a recently published handbook, the American Psychiatric Association (APA) Committee on Patient Safety identified and categorized six types of safety risks commonly associated with this population. These can be described using the SAFE MD mnemonic and include **S**uicide, **A**ggressive Behavior, **F**alls, **E**lopement, **M**edical Co-morbidity and **D**rug Errors [9]. Suicide and any serious adverse outcome relating to the other safety risks rise to the level of a sentinel event which TJC defines as "any unanticipated event in a healthcare setting resulting in death or serious physical or psychological injury to a patient or patients, not related to the natural course of the patient's illness." TJC requires each accredited organization to define sentinel events for its own purposes in establishing mechanisms to identify, report, and manage these events [12]. At a minimum, an organization's definition must include any occurrence that meets any of the following criteria: (1) Any unanticipated death or major permanent loss of function, not related to the natural course of the individual's illness or underlying

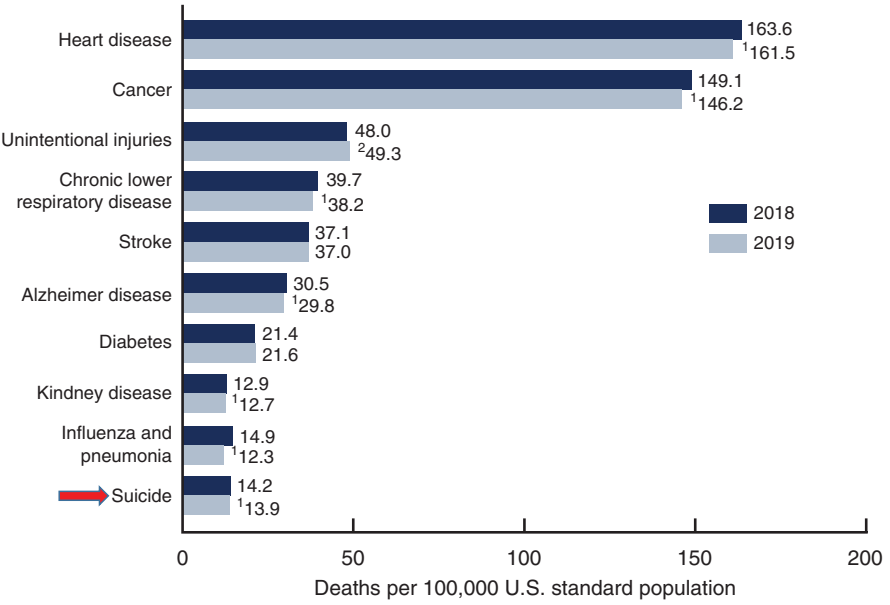

Fig. 20.3 Top 10 causes of death according to the Centers for Disease Control and Prevention (2019) in the year prior to the COVID-19 pandemic

condition; (2) suicide of any individual served receiving care, treatment, or services in a staffed around-the-clock setting or within 72 h of discharge; (3) abduction of any individual served receiving care, treatment, or services; and (4) rape.

Suicide consistently ranks high among the most frequently reported causes of death. In 2019, prior to the pandemic, the CDC reported that suicide ranked as the tenth highest cause of death in the United States [13] (Fig. 20.3).

The greatest *clinical* root cause of inpatient suicide is a failure in clinical assessment. In one study, the risk was not adequately assessed in about 60% of suicides, or else the risk level was not accorded appropriate precautions [14]. Upon all admissions, the assessment should begin with the use of a standardized tool that ideally produces a rating of the suicide risk. This rating is often expressed in terms of a "score" that can be used in conjunction with an assessment of the patient's thoughts, plans, means, and ability to complete the suicidal act. For those at risk of suicide, the assessment should be repeated following any traumatic occurrence during the stay and upon discharge. The risk of suicide is higher during the period immediately following discharge from inpatient psychiatric care than at any other time in a service user's life [15]. TJC considers suicide sentinel events as those occurring to an individual receiving care, treatment, or services in a staffed around-the-clock setting or within 72 h of discharge. Suicide continues to be among the most frequently reviewed sentinel events by TJC [16].

In the case of Beauregard, many of these factors existed. There was a poor assessment by the provider who did not recognize the presence of command auditory

hallucinations. Concurrently, there was a clear breakdown in communication among team members and in failing to inform the patient about the contact from his mother.

Aggression in psychiatric settings is a complex workplace problem. Patient factors found to be related to violence include being a young male with a diagnosis of schizophrenia, particularly with neurological impairment; having a history of violence; and being involuntarily admitted to the hospital. Research examining staff factors found that the incidence of violence was higher on wards where staff members were uncertain of their roles or where larger proportions of shifts were worked by substitute nursing staff. Similar to assessing suicide risk, the treatment team should use a combination of standardized rating tools, observations, and interviews in order to identify the likelihood of aggression on the unit. Beyond the obvious direct harms associated with aggression, there is also indirect risk of injury when attempting to manage this behavior, such as injuries resulting from attempts to subdue an aggressor. In addition, patients are at risk for self-injury if held in seclusion. Issues surrounding reduction and/or elimination of episodes of seclusion and restraint for patients with behavioral problems in crisis clinics, emergency departments, inpatient psychiatric units, and specialized psychiatric emergency services continue to be an area of concern and debate among mental health clinicians [17].

In the case of Herbert, human factors played a major role in the injury that occurred to the nurse. The charge nurse failed to alert the treatment team about his past violent behavior and behavior plan. The on-call physician failed to conduct a full assessment and prescribe appropriate medication. The staff did not demonstrate situational awareness or de-escalation techniques.

While the two cases above focused on self-harm and harm to others, there is a need to mitigate the other risks identified through SAFE MD. For example, falls may occur while patients are in behavioral health units or while experiencing altered mental status elsewhere in the hospital. There are many fall assessment tools available but the preferable ones will include the following risk factors: mental state impairment; gait and mobility; elimination problems; medications; and fall history [18]. One study showed that behavioral health patients were more likely to fall if prescribed sedatives and/or hypnotics, and experienced altered mental status or elimination problems [19].

Elopement is always a concern when persons are unwillingly detained through civil commitment and sometimes even when housed on a voluntary status. In order to minimize elopement risk, a healthcare organization should create an environment conducive to the ongoing observation of potential elopers. In addition, there should be procedures in place for searching for successful elopers and returning them to the unit if found.

It has long been acknowledged that behavioral health patients as a group were more likely than non-behavioral health patients to have a co-occurring medical illness. For example, one recent study showed that persons with schizophrenia were more likely to have a greater number of conditions spanning several disease categories including cardiovascular, pulmonary, neurological, and endocrine

diseases [20]. These comorbidities pose greater prescribing challenges and increase the likelihood of adverse drug interactions.

The prevalence of unintended and untoward drug–drug interactions is increasing in concert with both the increasing number of pharmaceuticals available and the number of patients on multiple medications. The risk of poly-pharmacy is found to be greater in patients who are on psychiatric medications such as antidepressants [21]. Therefore, prescribers should consider how medications may interact on the basis of their pharmacodynamics and pharmacokinetics along with the intended therapeutic use.

From a legal perspective, behavioral health patients may be admitted on a voluntary basis or an involuntary one, known as civil commitment. The general standard for involuntary civil commitment is whether or not the person poses a danger to self or others. An individual's "dangerousness" is clinically evaluated by one or more psychiatrists, but accurately predicting future harmful acts is far from an exact science [22]. It is the element of dangerousness that heightens the need for safety planning from prudent care management to legal obligation for this population. These legal standards have evolved through the power of the U.S. Constitution, which provides eighth Amendment protection from Cruel and Unusual Punishment and gives Congress the 13th Amendment right to enact laws aimed to prevent harms stemming from discrimination. While not a specific protected class, behavioral health patients may be subjected to sanism, which has been defined as, "the irrational prejudice that causes, and is reflected in, prevailing social attitudes toward persons with mental disabilities" [23]. These rights are generally protected by using "least restrictive alternatives" such as limiting the use of restraints and seclusion that might otherwise cause undue physical and/or psychological injury. This safety principle can be extended by the use of "safe behavior plans" in which patients contract to behave in a certain manner or else be subject to a consequence of a mutually agreed upon staff intervention. This approach can only be utilized if the patient exhibits the competence to complete a safe behavior plan.

Risk Reduction Strategies

Establish team roles and responsibilities—A well-delineated team structure assists all staff to work together. It is helpful to define the team membership, size, coordination of duties, and leadership lines. Collaboration among health professionals is the key to positive patient outcomes [24]. Often, it is just assumed that staff will perform their individual responsibilities and blend seamlessly together in the process. However, without clearly coordinated roles, they are more likely to operate within the narrow silos of their clinical expertise. This lack of coordination could cause patients' needs to go unidentified or unattended, thereby increasing safety risks.

Establish work standards for communicating clinical information—One method of sharing such information is through an interdisciplinary SBAR

(Situation—Background—Assessment—Recommendation/Request) handoff among staff. This is a technique for communicating critical information that requires immediate attention and action concerning a patient's condition. SBAR provides a description of what is happening now, the clinical context, a general assessment of any problems and an approach to correcting any problems. The SBAR is ideally given multiple times during the day in a short, huddle style. In addition to the SBAR technique, staff should be made aware of how to expeditiously escalate concerns when there is a change in patient behavior.

Establish clear guidelines for escalating safety concerns—Once the roles and work standards are in place, it is important for team members to have a mutually supportive method to escalate any perceived emerging safety issues. Sometimes staff are reluctant to challenge team leaders in fear of offending egos, overstepping professional boundaries, and/or retaliation. These fears must be put aside when they have an overriding safety concern. It becomes possible to allay such concerns if there is an organizational commitment to creating a culture whereby staff can respectfully advocate for the patient in a firm and assertive manner.

Formalize guidelines for de-escalating crisis situations—Balancing the safety of patients, visitors and staff require targeted training to prevent crisis from occurring when possible and effectively manage the environment when it becomes unavoidable. The primary concern becomes how to limit the use of restraint so that the patient is not exposed to excessive force. There are several nationally recognized training programs designed to mitigate the risks associated with harm intended by a patient. There are also some state and local regulations that give prescriptive guidelines. In New York State, for example, the Office of Mental Health has a restraint policy [25] which requires a 3-day minimum training, with a 2-day review program for Preventing and Managing Crisis Situation (PMCS) [26]. It calls for all clinical staff, including professional staff, as well as any staff that may be involved in restraint, receive orientation and instruction in alternatives to restraint, the appropriate techniques of applying the restraint, the potentially traumatic impact of restraint, and the laws, regulations, policies, and procedures governing the use of restraint.

Conduct ongoing environmental risk audits—Assemble a multidisciplinary team to periodically assess environmental risks. There are audit tools available such as the United States Department of Veteran Affairs National Center for Patient Safety's "Mental Health Environment of Care Checklist" [27]. This checklist was primarily designed to reduce the risk of suicide but is also useful for identifying objects that might be used in aggression toward others.

Promote culture of respect and sensitivity to potential sanist attitudes—It is a fundamental principle that all persons deserve to be treated with dignity and respect. However, due to many largely unspoken myths about the underlying etiology of mental disability, staff may unwittingly dismiss important warning signs. For example, an increased volume of speech may be perceived as a sign of escalating aggression when in fact the patient is experiencing physical distress and simply lacks the cognition skills to identify and articulate the pain sensation. Beyond this, staff sometimes "blame" behavioral health patients for aggressive actions and feel justified in punishing them by using excessive force in return. This is not meant to

minimize the importance of staff safety when it is necessary to resort to self-defense. However, no force should be applied to satisfy angry motives or exceed the minimum amount of force required to maintain the safety of all persons in the behavioral health environment.

Utilize safe behavior plans—The use of safe behavior plans presumes that there is mutual respect between patient and staff to be able to honor their agreements. Furthermore, these plans reinforce that the behavioral health patient has choices and is willing to accept the agreed upon consequences if not adhering to the contract. Overall, it is a formidable tool for promoting self-determination, self-esteem, and status as an important decision-maker in treatment.

Conclusion

While the behavioral health patient poses unique safety risks, the lessons learned from these cases include:

- Complete individualized risk assessments as a basis to inform an ultimate clinical evaluation for potential of harm.
- Make sure all staff have received appropriate competency training.
- Use risk reduction strategies that balance safety concerns and individual liberty rights.
- Foster a culture that centers around respect, communication, and teamwork.
- Devise strategies to safeguard against workplace violence especially as related to intentionally inflicted harm from patients exhibiting aggressive behavior.
- Promote a full spectrum of staff wellness and healing modalities for staff who have been a victim of workplace violence.
- Promote awareness of the insidious dangers of sanism.

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