ABSTRACT
This 1-year study of seclusion and restraint in an acute inpatient psychiatric hospital revealed a marked difference in reasons and duration for adults, children, and adolescents. Children and adolescents are most often secluded and restrained in response to identifiable patterns of dangerous behavior, and episodes of seclusion and restraint involving children and adolescents are considerably shorter than episodes involving adults. This information is being used to find ways to improve the care and treatment of all patients, especially for children. [Journal of Psychosocial Nursing and Mental Health Services, 52(3), 20-25.]
Since 2003, nurses, physicians, educators, and administrators at the New Hampshire Hospital (NHH) have met to review each episode of seclusion and restraint. They hear stories about what happened, ask questions, attempt to identify precipitants, and exchange ideas about interventions that may prevent recurrence of these episodes. In recent years, nurses and physicians involved in these reviews noticed that there seemed to be differences in the reasons children, adolescents, and adults were secluded or restrained, and there seemed to be differences in the length of time it took to resolve emergencies for each age group. The authors set out to determine if these differences between age groups really exist.

BACKGROUND

NHH is a 158-bed state psychiatric hospital that treats children, adolescents, and adults with symptoms of acute mental illness. The majority of patients are admitted on an involuntary emergency basis, due to being a danger to themselves or to others. The hospital’s Anna Philbrook Center (APC) treats children and adolescents ages 3 to 17, some of whom are admitted voluntarily.

During the first years of the executive-level review meetings, narrative descriptions of seclusion and restraint events revealed some common themes. Nurses participated in focus groups to discuss these common themes, and they agreed that seclusion and restraint events at NHH usually fall into one of six precipitant categories:

- Response to symptoms of psychiatric illness.
- Interpersonal conflict.
- Frustration with hospital/unit rules.
- Response to troubling news.
- Pattern of behavior.
- Response to direction/redirection.

These six categories were added to the debriefing section of the personal safety emergency (PSE) form that is used to document seclusion and restraint episodes.

Nine years of data collection show that a majority of psychiatric emergencies fell into two categories: those occurring as a result of a patient’s response to psychiatric symptoms of their illness, and those that were required to manage patterns of continuing aggression or self-injurious behavior (Allen, de Nesnera, & Souther, 2009). Until 2011, NHH’s data collection efforts focused on attempting to identify factors that precipitated violence and threatening behaviors and did not differentiate between age groups.

At NHH, any patient who is told he or she may not leave a room or area is considered to be secluded, even if the door is left open. Any patient who is forcibly moved or held against his or her will is considered to be restrained. The hospital has worked long and hard to eliminate the use of these restrictive interventions. A relationship-based nursing model (Allen & Vitale-Nolen, 2005) teaches staff to engage in frequent, respectful interactions with patients to develop therapeutic relationships. There is strong commitment from leaders who have developed clear policies and procedures, provided staff training on specific issues, facilitated debriefings, and provided regular feedback on progress (Allen et al., 2009). All NHH direct care staff members are trained in techniques for the safe management of disruptive and assaultive behavior. Staff education has been provided to help avoid situations that lead to assaults of staff and the subsequent need for physical interventions (Allen, de Nesnera, Cummings, & Darling, 2011; Johnson & Delaney, 2007). These are essential elements of programs that have reduced the use of seclusion and restraint in other settings (Recupero, Price, Garvey, Daly, & Xavier, 2011).

Despite these significant and sustained efforts, the hospital has not been able to eliminate the use of seclusion and restraint. Dangerous emergencies continue to occur, and although risks to patients can be severe, failing to use seclusion or restraint in emergency situations can result in adverse outcomes for the patient or others in the milieu (Moylan, 2009; Recupero et al., 2011). On average, 11% of all NHH patients are secluded, and 6% need to be restrained during their hospitalization. A recent survey of international literature and trends (Steinart et al., 2010) reported that NHH is not alone in its inability to completely eliminate the use of seclusion and restraint. Nonetheless, leaders and staff at NHH remain committed to the goal of eliminating the use of seclusion and restraint, and the hospital’s children’s center is close to achieving the goal of being restraint free.

LITERATURE REVIEW

We reviewed the literature about seclusion and restraint and found few studies related to differences between adults and children. One study found that seclusion was more common and of shorter duration than restraint in a child and adolescent setting (Martin, Fawcett, & Lee, 2004). There are also few studies about reasons for
secluding and restraining adults and children. One study of child and adolescent inpatients found that seclusion is most common among high-risk inpatients who have more severe psychopathology and more family problems (Gullick, McDermott, Stone, & Gibbon, 2005). Some studies identify actual and threatening violence as the most frequent reasons for restraint and seclusion, whereas others show that restraint and seclusion are used much more in response to agitation/disorientation than actual violence (Keski-Valkama et al., 2010).

To our knowledge, no study has looked at the specific reasons for the use of seclusion or restraint in children and adolescents, nor has there been an attempt to determine whether any differences exist for the reasons children, adolescents, and adults are secluded or restrained. Additionally, no investigation has examined if the overall time spent in either seclusion or restraint differs between children, adolescents, and adults. Therefore, this study attempted to identify any differences that may exist between seclusion and restraint events involving children, adolescents, and adults.

**METHOD**

In 2011, NHH nurses designed and implemented an electronic Microsoft Access® database that has provided a closer look at the details of seclusion and restraint episodes. The nurse involved in each seclusion or restraint event documents the patient’s description of what happened, as well as the nurse’s own assessment of what happened on the PSE form. The nurse determines if the reason for the intervention falls into any of the six precipitant categories and checks the appropriate box.

The PSE forms are brought to the daily executive review meeting where they are reviewed. Each night, staff nurses review all patient records and enter data from all PSE forms for that day into an electronic database. If any information is missing from the forms, they are sent back to the unit nurse, via the unit supervisor, to assure timely and accurate completion. Once entered, the data can be sorted by date, age group, and reason. For the purposes of this study, the data for a 1-year period from April 1, 2011 to March 30, 2012 were used to compare average hours per episode of seclusion or restraint and reasons for seclusion or restraint by age group (child = younger than 13; adolescent = ages 13 to 17; adult = 18 and older).

**RESULTS**

The results of our data collection are summarized in Table 1, Table 2, Table 3, and Table 4.

Our data show a striking difference among children, adolescents, and adults in time spent in seclusion and restraint, as well as reasons for the use of seclusion or restraint. Adults spent, on average, more than twice as long as children in restraints, and adults spent more than five times longer in seclusion than children. Adults were restrained and secluded almost twice as long as adolescents.

The most common reason for seclusion or restraint in children and adolescents was some identifiable pattern of behavior (e.g., outbursts of aggression at meals or bedtimes) that created a risk for harm to themselves or others. The most common reason for seclusion or restraint in adults was the patient’s response to specific psychiatric symptoms (e.g., fear related to paranoia or hallucinations) that led to aggression, property destruction, or other violence.

Adults were also frequently secluded or restrained for reasons identified as patterns of behavior, and the most commonly described pattern was self-injurious behavior. Adolescents were the age group most likely to be secluded and restrained due to frustration with rules. Children were more frequently secluded and restrained for this reason than adults. Adolescents are the only age group to have any notable number of episodes of seclusion related to direction or redirection. Episodes of seclusion and restraint linked to interpersonal conflicts were more frequent for children and adolescents than for adults.

**DISCUSSION**

Although this quality improvement project does not have a controlled experimental design, and therefore causation cannot be implied, we believe

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**TABLE 1**

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<th>TIME IN RESTRAINT (APRIL 1, 2011 TO MARCH 31, 2012)</th>
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<tr>
<td>Age Group</td>
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<td>Child (younger than 13)</td>
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**TABLE 2**

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<th>TIME IN SECLUSION (APRIL 1, 2011 TO MARCH 31, 2012)</th>
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that our findings may contribute to evidence-based practice. Newhouse, Dearholt, Poe, Pugh, and White (2007) affirmed that the best available evidence may be the findings of quality improvement projects such as this one. According to the American Nurses Association (2012), “targeting specific units or groups of patients…and then identifying who is restrained and why, lays the groundwork for interventions aimed at eliminating or minimizing use of restraints” (pg. 9).

There are some commonalities in the NHH treatment setting for all age groups. All staff receive the same amount and type of training, regardless of whether they are assigned to work with children, adolescents, or adults. All units have patients who agitate each other, regardless of age. The physical environment is similar for all patients of all age groups. Private rooms are rarely available; therefore, all patients must share a room. Staffing patterns, skill mix, and experience of staff are similar on all units. This suggests that other factors are at play in creating the differences we found between age groups.

Attempts to categorize reasons for seclusion and restraint are complicated by a variety of factors. Unit rules and staff who interpret them in an inflexible manner sometimes set the stage for negative interactions and power struggles that can lead to more restrictive interventions for patients of all ages. Short et al. (2008) confirmed that unit rules, bad news, and staff direction are elements of care that may influence the use of seclusion and restraint. NHH staff are being encouraged to evaluate and limit rigid unit rules, as promoted by Allen et al. (2011). Staff report that rules and limits related to food and snacks are a frequent source of controversy for staff and patients, and efforts have been made to moderate these controversies.

It is not surprising that adults have a large percentage of episodes of seclusion or restraint linked to their psychiatric symptoms. At NHH, adults are primarily hospitalized on an emergency basis for dangerousness due to symptoms of mental illness. Most adults admitted to NHH arrive in handcuffs and shackles after being transported from emergency departments by local police or county sheriffs. These individuals have frequently stopped taking prescribed medications, have minimal insight into the need for treatment to alleviate their psychiatric symptoms, and are often angry about being involuntarily detained. Many adults have histories of violence and criminal behavior. Adults are typically physically larger and stronger than children or adolescents; therefore, threats may be taken more seriously and attempts to harm themselves or staff may be more likely to be perceived as imminently dangerous. Clinicians assessing adults for readiness for release from restrictive interventions may be justifiably wary due to the level of violence demonstrated.

Adolescents are generally more physically intimidating and may exhibit more dangerous behaviors than younger children, increasing the likelihood that seclusion or restraint will be used and sustained for longer periods of time. A child’s behavior, in comparison, typically escalates quickly to a dangerous level for specific behavioral reasons, yet the child will often calm just as quickly, once a restrictive intervention has been implemented. Because brief manual holds are counted as episodes of restraint, it might seem likely that younger children would be restrained more frequently than adults, but that is not our experience—there were only 17 episodes of child restraint in the year studied, as compared with 247 adult episodes.
Environmental restrictions necessitated by the need to separate children and adolescents by gender and age limit free movement about the unit. Lack of space may explain why children and adolescents have a larger percentage of episodes of seclusion and restraint linked to interpersonal conflicts than adults.

Developmental differences between children and adults may also be factors in this study. Young children tend to exhibit undirected, time-limited “temper tantrums.” Elementary school children begin to manifest more targeted aggression that is situation dependent and person directed. As children age, the frequency of aggression decreases due to improved mood modulation and impulse control, yet the severity (potential for damage to property or injury of others) increases. A hallmark of adolescence is the questioning of adult authority, which may explain why more episodes of seclusion are linked to frustration with rules and response to direction/redirection for this age group.

Cultural and social norms of acceptable aggression across all age groups may also be factors in the way staff respond. A 5-year-old who lashes out at a staff member will be perceived and responded to very differently than a physically large adolescent who engages in similar behavior, irrespective of the presence or absence of a mental illness. A high degree of perceived threat will most likely lead to a more restrictive response from staff when an adolescent or adult is involved.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

This 1-year study of episodes of seclusion or restraint at NHH showed a marked difference among adults, children, and adolescents in the reasons for seclusion or restraint, as well as the overall time spent in seclusion or restraint. Children and adolescents are most often secluded and restrained in response to patterns of behavior, whereas adults are most often secluded and restrained due to the patient’s response to disturbing symptoms of psychiatric illnesses. Episodes of seclusion and restraint involving children and adolescents are relatively short when compared to episodes involving adults.

Our findings led us to take a closer look at the way we train staff to care for patients and also to evaluate other treatment and environmental factors that may influence the need for seclusion and restraint in adults and children. Staff who care for children and adolescents at NHH receive the same training as staff who care for adults. The information gained from our study led us to realize that staff may need more age-specific training to help shorten and eliminate the use of seclusion and restraint interventions.

Young children tend to exhibit undirected, time-limited “temper tantrums.” Elementary school children begin to manifest more targeted aggression that is situation dependent and person directed.

Staff are being encouraged to help maintain appropriate unit expectations without rigid, unreasonable rules and to focus on the development of more comprehensive, individualized treatment plans. When troublesome patterns of behavior are identified, treatment teams are encouraged to seek consultation through case conferences. Nurses are encouraged to continually assess patients, of all ages, for symptoms that may be causing distress, and to request physician assistance with appropriate medications at the earliest opportunity. Administrative support is being provided for mentoring for nurses and ongoing supervision and coaching for professional and non-professional staff, in an effort to influence long-standing attitudes and practices.

Significant changes are being made in the treatment environment and treatment program for children. Renovations are currently underway to physically expand the APC to provide more space and private rooms for all children and adolescents, in addition to comfort and sensory rooms. It is expected that NHH’s youngest patients will be better able to stay in control of their own behavior when they have their own private and comforting spaces. It is also hoped that the increased space and ability to separate children according to age and gender will help staff be more relaxed and proactive in their approaches to patients. Policies and procedures that guide the way staff care for patients of all ages are being examined to determine whether they meet the specific needs for patients in all age groups.

Although we have described several factors that influence the differences in reasons that children, adolescents, and adults are secluded and restrained, it is possible that staff training is most important. Cognitive, developmental, cultural, and societal differences among children, adolescents, and adults require that staff have different expectations and approaches for the different age groups. Staff who care for children and adolescents are currently receiving intensive training in the use of Greene
KEYPOINTS

1. Nurse-collected data from crisis debriefings have shown that children, adolescents, and adults are secluded and restrained for different reasons and for different lengths of time.

2. This 1-year study provided valuable insight into patient behaviors and staff responses during psychiatric emergencies.

3. Exploration of age-related differences in behaviors and responses has led to changes in staff training and treatment team approaches that may help eliminate the use of seclusion and restraint, especially for children.

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Ms. Allen is Assistant Director of Nursing, New Hampshire Hospital. Dr. de Nesnera is Associate Medical Director, New Hampshire Hospital. Ms. Moreau is Nurse Manager, Anna Philbrook Center, New Hampshire Hospital, and Dr. Barrnett is Associate Medical Director, Child and Adolescent Psychiatry, New Hampshire Hospital, Concord, New Hampshire. In addition, Dr. de Nesnera is Associate Professor of Psychiatry, Dartmouth College Geisel School of Medicine, Hanover, New Hampshire.

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Address correspondence to Diane E. Allen, MN, RN-BC, NEA-BC, Assistant Director of Nursing, New Hampshire Hospital, 36 Clinton Street, Concord, NH 03301; e-mail: dallen@dhhs.state.nh.us.
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and Ablon’s (2005) and Greene, Ablon, and Martin’s (2006) collaborative problem solving methods. It is anticipated that implementation of this cognitive-behavioral model will bring about more proactive, goal-directed interactions that help staff identify and meet the needs of patients. Greene’s cognitive-behavioral model for working with aggressive children and adolescents has helped dramatically reduce rates of seclusion and restraint in other settings (Green et al., 2006).

We anticipate that the combination of environmental, treatment program, and policy changes on our children’s unit will build on previous work and lead us closer to the goal of eliminating the use of seclusion and restraint with children and adolescents, and ultimately, with all patients.

REFERENCES


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