
PHYSICAL RESTRAINTS



Awareness regarding physical restraint use in nursing homes has increased since the federal government enacted the Omnibus Budget Reconciliation Act (OBRA) of 1987. Among its provisions OBRA-87 states that "residents have the right to be free from... any physical or chemical restraint imposed for purposes of discipline or convenience and not required to treat the resident's medical symptoms" (HCFA, 42 CFR 483.13(a)). Under CMS' definition a restraint may be "any manual method, physical or mechanical device, material, or equipment attached or adjacent to the resident's body that the individual cannot remove easily which restricts freedom of movement or normal access to one's body. Physical restraints include, but are not limited to, leg restraints, arm restraints, hand mitts, soft ties or vests, lap cushions and lap trays the resident cannot remove. Likewise, wheelchair safety bars, chairs/gerichairs, and bedrails that prevent the resident from voluntarily rising are considered physical restraints" (HCFA, 42 CFR 483.13(a)). This definition is important because it states that whether or not an object is classified as a restraint depends upon the effect the object has on the resident.

Included in the definition of a restraint are "facility practices that meet the definition of a restraint, such as using bedrails to keep a resident from voluntarily getting out of bed as opposed to enhancing mobility while in bed; tucking in a sheet so tightly that a bed-bound resident cannot move; using wheelchair safety bars to prevent a resident from rising out of a chair; placing a resident in a chair that prevents rising; and placing a resident who uses a wheelchair so close to a wall that the wall prevents the resident from rising" (Guttman et al., 1999).

It is noteworthy that bedrails were not initially included in the OBRA guidelines regarding restraint use but were later added in 1992. Bedrails are restraints "when the

rails impede the resident's voluntary movement or activity, such as getting out of bed." Likewise, bedrails "are not restraints if a cognitively intact resident chooses to use the siderail(s) for enhancing mobility in bed" (Capezuti, 2000).

Guidelines & Federal Regulations

Provisions of the Nursing Home Reform Act were included in OBRA and implemented in 1990 stipulating "restraints were to be imposed only to ensure the physical safety of the resident or that of other residents and only on the written order of a physician... orders for restraints were required to be specific with regard to the duration and

circumstances for their use” (Guttman et al., 1999).

In 1996 revisions were made to the OBRA regulations which included operational instructions to state surveyors. The Interpretive Guidelines were expanded to further define a physical restraint and the context in which restraints may or may not be utilized (Guttman et al., 1999). The resident has the right to participate in their plan of care, and can refuse or accept restraints. The facility is required to educate the resident and/or their legal guardian regarding restraints and their negative outcomes so they can make informed decisions.

Standards for restraint and seclusion provided by the Joint Commission of Accreditation of Healthcare Organizations required facilities to limit and reduce the use of restraints and seclusion. They encouraged administrators to use preventive strategies, devise effective protocols, conduct frequent assessments, and early release from restraints in cases of medical necessity (Guttman et al., 1999).

Physiological and Psychological Effects of Restraint Use

There are many possible adverse physiological and psychological outcomes of restraint use for nursing home residents. Included in these are urinary incontinence, increased agitation, circulation impairment, skin breakdown, decreased mobility (Williams & Finch, 1997), physiologic stressors, social isolation, and reduced sensory and perceptual input (Sullivan-Marx, 2001), as well as abnormal changes in body chemistry, basal metabolic rate, and blood volume; orthostatic hypotension; contractures; edema; decreased muscle

mass, tone, and strength; nosocomial infection; cardiac stress; problems with elimination; loss of dignity; increased confusion and combativeness; and even death can result from the use of restraints (Evans & Strumpf, 1990).

Further, it is estimated that as many as 200 deaths occur every year as a result of strangulation or suffocation from restraints, even when they are applied according to manufacturer’s instructions (Guttman et al., 1999). Manufacturers of physical restraints often attribute the deaths to “poor clinical decision making or inadequate monitoring” (Miles, 2002). Miles and Irvine (1992) estimate as many as 1 in 1,000 deaths in nursing home residents are a result of restraint use.

Common Justifications for Restraint Use

Cognitive impairment, functional dependence, older age, presence of treatment devices, and history of falls are important resident characteristics associated with restraint use (Tinetti et al., 1992; Castle & Mor, 1998; Sullivan-Marx et al., 1999b). Commonly cited reasons for using physical restraints include perceived fall risk, disruptive behaviors, protection of medical devices, wandering (Schnelle et al., 1992; Castle & Mor, 1998), altered mental status, and protection of other residents (Bryant & Fernald, 1997). A study by Sullivan-Marx et al. (1999b) found it was the staff’s perception of fall risk, not actual falls, that influence their decision to restrain a resident. The choice to utilize restraints in the nursing home often involves an attempt to control behavior, lack of alternate interventions, limited behavior assessment skills, belief that restraints provide a safe environment, and lack of education regarding the hazards of restraint use

(Sullivan-Marx et al., 1999a). Often the rationale to use physical restraints is not acceptable. Behaviors precipitating consideration of restraint application should immediately be investigated to understand whether the resident is experiencing a change in health state or expressing an unmet need.

Studies by Capezuti et al. (1998a) and Castle and Mor (1998) provided evidence that physical restraint removal did not lead to an increase in falls or fall-related injury among nursing home residents. Also physical restraint application did not lower the risk of falls or injuries for residents likely to be restrained (Capezuti et al., 1996) and in a similar study there was a correlation of physical restraints and continued or even increased incidence of fall-related injuries (Tinetti et al., 1992). In reference to bedrails, Capezuti and colleagues (2002) found that bilateral bedrails did not decrease falls or serious injuries. Parker and Miles (1997) point out that bedrails are up in most falls from bed, and most injuries occur when residents fall out of bed while attempting to climb over the rails. The immobilizing effects of physical restraints directly affects an individual's ability to ambulate safely by decreasing muscle mass, strength, and flexibility, and therefore contribute to falls and serious injury (Capezuti et al., 1996). In the past, physical restraints were viewed as preventive measures; however, multiple research studies are supporting the reality that they are, in fact, risk factors (Capezuti et al., 1996).

Initiation of physical restraints occurs more frequently with individuals with cognitive impairment (Sullivan-Marx et al., 1999a). In a study by Capezuti et al. (1996) non-confused ambulatory residents were almost never restrained while confused ambulatory residents were restrained 37% of the time.

Agitated behavior is often managed with physical restraints because it provides immediate intervention. This approach can exacerbate the agitation, increasing the risk of harm to the resident (Castle & Mor, 1998). According to Castle and Mor (1998) “there is little evidence to suggest that restraints ever were useful in the nursing home setting. This has led many authors to conclude that the efficacy of restraint lies in the fact that they are a convenience for staff because they control undesirable behavior.”

Barriers to Restraint Elimination Efforts

Although research has clearly demonstrated that physical restraints can be damaging both physically and mentally for residents, cost more in terms of resources, and can increase the incidence of serious injuries, the rate of restraint use in the U.S., according to CMS, continues to range between 5.8% and 24.9%. These figures may be even higher, as the percentages rely on self reports (Sullivan-Marx et al., 1999a). Perceived barriers to individualized care identified by both nurses and CNAs include cost, insufficient staff, safety and regulatory concerns, lack of team cooperation and communication, lack of input by the nursing assistants for care planning, and staff and family attitudes (Walker et al., 1999).

Williams and Finch (1997) suggest one reason for continued restraint usage “is the lack of comprehension of the paradigm shift that is necessary to achieve restraint-free care. It is misleading to set a goal of restraint reduction or to think in terms of restraint alternatives. Talk of reduction implies that there is a group of people for whom physical restraint is appropriate. Such a group has not been identified... speaking of restraint alternatives is also highly misleading

because it suggests that there are other devices that can be substituted.”

In regard to achieving restraint-free care, many studies have found the number of full-time staff remained the same (Dunbar et al., 1997; Neufeld et al., 1999). “More relevantly, the nature of the staff’s activities changed as restraint use declined. The law states that restrained residents must be freed from restraint and exercised every two hours. After repositioning and reapplying the restraints, staff must then document accordingly. Staff caring for unrestrained residents have this time available for other activities and reported that they spent this time socializing and monitoring their restraint-free residents.” A study by Schnelle et al. (1992) found that between 50% - 60% of the time, residents are inappropriately restrained longer than two hours. In one case they found documentation by nursing aides to reflect 100% compliance with the two-hour release rule when, in fact, their objective observations showed only 57.1% were appropriately released every two hours. According to Schnelle, monitoring a restraint reduction program and ensuring staff accountability for adhering to the program may actually result in fewer restraints due to the high time demands of restraint management. With the shortage of nursing time and assistance, staff may be motivated to find more appropriate ways to meet residents’ needs. It has been suggested that residents who are restrained consume more staff resources than do unrestrained residents (Dunbar et al., 1997; Evans & Strumpf, 1990; Castle & Mor, 1998).

Many caregivers feel restraint elimination efforts are too costly or unavailable (Evans & Strumpf, 1990). It was initially expected that the nursing home industry would spend close to \$1 billion; however, many nursing homes have reduced restraints without

increasing staff or costs (Castle & Mor, 1998). Evans and Strumpf (1990) and Strumpf et al. (1998) identify five categories of interventions, most of which are readily available at a low cost. They include: physiologic care (e.g., comfort, pain relief, positioning and changes in medication or treatment); psychosocial care (e.g., motivation, companionship and supervision); activities (e.g., distraction and recreation); environmental manipulation (e.g., adequate lighting, furniture rearrangement and removal of restraint devices); and lastly, administrative support and staff training.

Legal issues and fear of a lawsuit may impede the efforts to eliminate restraints in a nursing home setting. Caregivers often feel they will be liable for not protecting a resident from serious injury or necessary treatment if a restraint is removed; however, research results indicate restraints increase the risk for serious injury (Evans & Strumpf, 1990). Strumpf et al. (1998) state “successful lawsuits based solely on failure to restrain appear to be rare or non-existent. Lawsuits involving use of restraints are increasing.”

Approaches to Restraint Elimination

Individualized care has emerged as a primary key in providing restraint-free care. “The goals of individualized care include promoting comfort and safe mobility, optimizing function and independence, and achieving the greatest possible dignity and quality of life. Such care requires clinicians to make sense of behavior rather than to control responses of clients.” (Strumpf et al., 1998). Individualized care entails “knowing the patient, acknowledging the patient’s right to make choices, establishing relationships with providers, and allowing

for participation and direction of care by the patient” (Sullivan-Marx, 2001). Happ et al. (1996) defines individualized care as “an interdisciplinary approach which acknowledges elders as unique persons and is practiced through consistent caring relationships.” An individualized approach will identify and address the specific needs of a resident, understand situations from a resident’s perspective, and implement approaches as varied as the needs of each individual resident (Walker et al., 1999). The plan of care should fit the resident’s pattern of behavior to staff’s schedules, not vice versa (Dunbar et al., 1997).

Many facilities find the best way to approach restraint reduction is with a multidisciplinary quality improvement team. Individuals considered for restraint reduction often have complex issues requiring the collaborative knowledge and perspective of various disciplines in order to decipher the meaning of behavior. By addressing the needs of individuals through a quality improvement framework, clinical practices and interventions for restraint elimination would become the standard rather than the alternative. Ideally a restraint reduction team should consist of a clinical coordinator, the administrator, charge nurse, physician, rehabilitation therapist, restorative personnel, social worker, activities director, nursing assistants, the resident, and the resident's family if the resident wants them to be involved. Responsibilities of a restraint elimination team should include: resident assessment, individualized care plans, documented interventions and outcomes, and maintenance of a restraint-free environment, staff education, and communication.

Staff or family attitudes and fears can prevent success with restraint elimination measures. The restraint team should be

proactive and provide education and resources, permit individuals to express their fears and doubts, and encourage active involvement in designing the plan of care. Approaching restraint reduction with an incremental plan allows caregivers to overcome their fears and resistance. Beginning with one unit at a time or starting with the easiest residents and working toward the more difficult may make the task of restraint reduction more feasible (Castle & Mor, 1998; Schnelle et al., 1992). The successful interventions will allow staff and family members to become more comfortable and confident with the elimination of restraints.

Assessment is a vital aspect of providing individualized care. Only through continual assessment can you begin to understand the causes of changes in behavior or health status such as: constipation, anxiety, boredom, fear, pain, infection, loneliness, and decreased social interaction. Identification of the cause then translates into the individualized intervention (Evans, 1996). Capezuti et al. (1998b) recommends a comprehensive individualized assessment involving data collection in the following four areas: 1) review of resident history, staff rationale for using restraints, and incident reports; 2) physical examination; 3) assess bedroom and bathroom environmental characteristics; and 4) identify resident-specific problems.

Consultation with a gerontologic nurse specialist (GNS) with education for nursing home staff has been shown to be more effective on restraint reduction than providing education alone (Evans, 1997). Consultation includes assistance with assessments, interpreting behavioral symptoms, developing systems for referrals, responding to referrals, daily rounds, enhancing staff awareness, joint problem

solving, reinforcing accountability, promoting staff recognition, individualized care planning, and evaluating the treatment plan (Patterson et al., 1995). A study by Evans et al. (1997) demonstrated that even though all nursing homes are subjected to the federal policy mandating physical restraint reduction, it may have minimal impact without extra measures to facilitate implementation. Their research supports unit-based, resident-centered consultation sessions focused on “effects of physical restraints, minimizing fall-risk, preventing interference with medical treatment, and coping with behaviors like wandering and agitation.” According to Neufeld et al., (1999) “some nursing homes will not have access to consultants, but an interdisciplinary team consisting of a physician, nurse, social worker, and therapists contracted through Medicare could perform the appropriate assessments and develop individualized interventions.”

The success of a restraint elimination program is dependent upon the support of the administrator, director of nursing, family, and health team members (Sullivan-Marx, 2001). According to Williams and Finch (1997), this may be the single most important element of a successful restraint-free program. Dunbar et al. (1997) observed “that one of the most important factors in reducing the use of restraints was the attitude and commitment of administrators to be knowledgeable about restraint-free care, willing to advocate for its implementation, and able to guide and lead their facilities through the process.”

Family involvement, education, and support is critical to achieving a restraint-free environment. Education regarding hazards of restraint use and alternate ways of providing a safe environment will provide family members the security they need to

feel comfortable placing their loved one in a restraint-free facility. Family fears can be eased by participating, if the resident wishes, in the process of trial and error, care planning, and decision making with restraint reduction (Cohen et al., 1996). Information can be gathered from loved ones regarding resident’s habits, preferences, and traits. This information can affect development of an individualized plan of care.

The restraint reduction team should develop a policy and procedure for restraints within their organization. Staff education based on the policy is imperative for consistent interventions, clear expectations, and quality decision making regarding physical restraints. Components of the program should state beliefs and goals, reflect compliance with regulations, and define standards of practice. Strumpf et al. (1998) defines standards of practice for physical restraints including:

- ▲ “Behavior should trigger assessment and intervention aimed at individualized approaches to care without restraint”;
- ▲ “In the rare circumstance where a restraint is applied, this should only occur as a result of collaborative decision making among nurse, physician and other health team members. Such a decision should be the result of comprehensive assessment, case review, and sufficient evidence of attempted interventions. This decision must also incorporate informed participation and consent by patients/residents and families”;
- ▲ “Restraints are never used as a substitute for observation”;
- ▲ “If for any reason restraints are to be used, then use is as a short-term measure and only as a *last resort*. Any application of a physical restraint is to be done by properly trained staff who are keenly

aware of the potential hazards. When short-term use is unavoidable, attention to comfort, safety, and needs for food, hydration, elimination, exercise, and social interaction are required. The client should be debriefed following the experience of restraint to prevent negative emotional consequences.”

Interventions for Achieving a Restraint-Free Environment

According to Capezuti (2000), removing restraints without addressing the resident’s underlying problem may cause an increase in falls and injuries. Problems precipitating restraint usage may include impaired mobility, injury risk, sleep disturbance, nocturia/incontinence, (Capezuti et al., 1999), cognitive impairments (Sullivan-Marx, 2001), behaviors, and interference with medical treatments (Strumpf et al., 1998). Strumpf et al. (1998) categorizes four types of interventions: physiologic, psychosocial, activities, and environmental.

Physiological interventions involve identification of reasons for falling and comprehensive assessment, medication review and adjustment, rehabilitation involvement by PT/OT, and provision of comfort and pain relief (Strumpf et al., 1998). Capezuti et al. (1999) recommends interventions for impaired mobility including range of motion programs, and increasing staff awareness. According to Sullivan-Marx (2001) “physiologic approaches to care for acutely confused older adults include such measures as diagnosing the cause of delirium and taking steps to correct the cause. Relief of pain and maintenance of hydration and oxygenation should be a priority. Necessity of treatments should be reconsidered and discussed by team members.” Interventions for individuals prone to injury include mattress

bumpers, body pillows, and hip protectors (Capezuti et al., 1999). Individuals suffering from sleep disturbance may benefit from avoiding daytime naps, pharmacological evaluation, maintaining regular sleep schedules, and pressure relieving interventions to promote good skin integrity while in bed (Capezuti et al., 1999). Also, provide assistance with elimination before bedtime to reduce the chance of getting out of bed unassisted during the night. Other interventions for incontinence involve thorough evaluation, elimination rounds, urinals, bedpans, absorbent pads, bedside commodes, and non-slip footwear (Capezuti et al., 1999).

Psychosocial interventions include anticipating the resident’s needs, companionship, supervision, a calm approach, and active listening (Strumpf et al., 1998). For individuals with memory impairments, removing barriers such as full-length bedrails, and encouraging the use of assistive devices such as walkers and bedside commodes may prevent bed-related falls and injuries (Capezuti et al., 1999). “Psychosocial approaches entail such interventions as enabling frequent family contact and supportive interaction with staff” (Sullivan-Marx, 2001).

Activity interventions can include ambulation/weight-bearing programs, restorative involvement, fall-prevention programs, transfer training, provision of meaningful activities, distraction, television, exercise, social events, and structured routines (Strumpf et al., 1998). Sullivan-Marx (2001) also advocates activity and exercise programs to ensure mobility, maintain self-care activities, and prevent functional decline.

Environmental modifications include adjusting bed and toilet seat to appropriate

heights, applying nonskid surfaces, installing overhead trapeze or transfer pole at the bedside, decreasing furniture clutter, providing adequate lighting, and motion alarms to decrease risk of bed-related injuries (Capezuti et al., 1999). Interventions also recommended for individuals with cognitive impairment include calendars, clocks, and photographs of loved ones (Sullivan-Marx, 2001). Strumpf et al. (1998) also recommends wheelchair modifications, accessible call lights, placing the mattress on the floor, varied sitting locations, placement of the resident near a nursing station, and adaptive clothing.

Benefits of a Restraint-Free Environment

Residents who are not restrained tend to be less agitated, less fatigued, and more social. They are able to attend activities and social gatherings with friends and family, which increases communication and appropriate physical and sensory stimulation. Unrestrained residents exhibit greater independence with toileting, mobility, feeding, dressing, and strength which decreases the burden of care and saves time and supplies (Dunbar et al., 1997). The resident's autonomy and dignity improves without the confinement of physical restraints. Achieving restraint-free care also results in a sense of pride for caregivers. They gain a reputation for providing high quality of care to their residents, serious injuries significantly decline, staff turnover decreases, staff morale increases and families support restraint-free care (Dunbar et al., 1997). Restraints can be significantly reduced without increases in serious injuries, staffing, or substitution of psychoactive drugs (Evans et al., 1997; Siegler et al., 1997; Neufeld et al., 1999). Reducing the number and type of physical restraints in a facility not only meets the federal regulation

requirements; it also is an improvement for the facility, families, and residents.

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