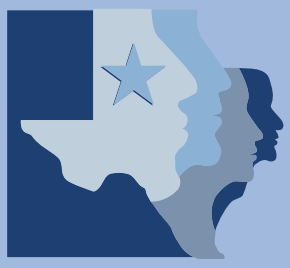

DHS
Medical
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Reducing the Use of Restraints in Texas Nursing Homes

An Educational Outreach Project of the

Texas Department of Human Services

in cooperation with the

Texas Medical Directors Association

and the

Texas Medical Foundation

Reducing the Use of Restraints in Texas Nursing Homes

FYI

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The purposes of this educational booklet are to review the clinical literature concerning the use of physical restraints in nursing homes, and to enlist your help in bringing about the elimination of this widespread and hazardous practice.

After reading this article, you should be able to:

1. Recognize physical restraints.
2. Identify the common reasons for and consequences of restraint use.
3. Understand federal regulations regarding restraint use.
4. Eliminate all avoidable physical restraints currently in use.

We hope that you and your colleagues will find this information booklet helpful, and that through your participation in this restraint reduction effort, Texas nursing home residents will be safer. Thank you for your help in assisting your nursing homes to reduce the use of physical restraints.

This educational booklet is provided to you by the Medical Quality Assurance department of the Texas Department of Human Services in collaboration with the Texas Medical Directors Association and the Texas Medical Foundation.

FYI

Definition

Physical restraint

A physical restraint is any mechanical device attached or adjacent to any part of a resident's body that restricts freedom of movement or access to one's body. [1]

Types of physical restraints

Physical restraint refers to both devices and practices that restrict movement. Physical devices used as restraints include, but are not limited to limb restraints, soft ties, vests, and lap cushions or trays that a resident cannot easily remove. Practices that meet the definition of restraint are tucking in or using Velcro to hold a sheet, fabric or clothing to restrict a resident's movement; using devices in conjunction with a chair, such as difficult-to-remove trays, tables, bars or belts that prevent a resident from rising; placing residents in chairs that prevent them from rising; and placing a chair or bed so close to a wall that the wall prevents the resident from rising. [2]

Restraint use in Texas nursing homes

During 2000-02, Texas has ranked among the four states with the highest prevalence of restraint use in nursing homes. [3,4] During fiscal 2002, the Texas Nurses Foundation was contracted by the Department of Human Services (DHS) to conduct physical assessments and chart reviews of 1,972 randomly selected Texas nursing home residents. These assessments showed that 19.5 percent (n=385) of the residents had spent at least some time in trunk, waist or limb restraints during the seven days prior to assessment. [5] Among the approximately 20 percent of Texas nursing home residents on whom restraints were used, the majority (95.6 percent; 368 of 385) had been in restraints every day during the preceding week. Based on expert panel criteria (see Table 1), the use of restraints was considered unavoidable in less than 10 percent (n=34) of these residents. Thus, the overall prevalence of unavoidable restraints was 2 percent rather than the observed 20 percent.

Table 1. Expert panel criteria for unavoidable restraint use

Circumstances in which restraint use might be unavoidable*
The presence of a life-sustaining medical device (e.g., endotracheal tube, healing percutaneous feeding tube tract created within the past four weeks, central venous line, or an interruptible arteriovenous shunt) that if disrupted would create immediate jeopardy to the resident's health - specifically in a resident who is at high risk for unintentionally disrupting that device (e.g., a delirious resident).
Unprovoked or uncontrollable physically violent/injurious behavior toward self or others. Note: resisting care is not considered an instance of this type of behavior, but a patient-to-patient assault or intentional self-injury is.
Hip fracture with either no repair or an ORIF procedure (or another type of lower extremity fracture in which weight-bearing is restricted) occurring in the preceding six weeks - specifically in a resident who cannot otherwise be kept from rising without assistance.
Traumatic self-removal of an indwelling catheter by a resident who continues to demonstrate a tendency to repeat it.

*Restraint use is considered unavoidable only when the use is for a well-defined and limited length of time while alternative measures are instituted.

Reasons for the use of physical restraints in nursing homes

The use of restraints may have originated from methods of preventing harm to one prisoner by another and for managing violent behavior in prisons and mental institutions. [6,7] Later, restraints appeared in acute care hospitals – presumably to help prevent patients from harming themselves or others. This practice was later emulated in nursing homes with the likely intent of controlling behavior, maximizing safety and minimizing risks. [8] Other factors contributing to continued restraint use include the belief that restraints cannot be eliminated without additional staffing and expenses, lack of staff knowledge concerning restraint alternatives, other beliefs and attitudes, and the fear of litigation arising from resident injuries that may occur among residents who are not restrained. [9-12]

Concerns for costs of care

The concern that reducing the use of restraints will increase the cost of long-term care services is unwarranted. Studies have shown that restraint use actually increases staffing costs. [13-15] Restrained residents require more staff time for restraint monitoring. [14] Restraint reduction is related to decreased staff turnover and decreased staff hiring and training costs. [13,14] In addition, the number of full-time equivalent (FTE) staff needed to provide care remains unchanged when restraints are eliminated. [13]

The cost of devices used as restraints has been shown to be about the same as the cost of non-restraint alternatives (e.g., wheelchair modifications, seating alternatives and alarms). [13,14]

Staff knowledge, attitudes and beliefs

Nursing home staff may be reluctant to implement restraint reduction because they are unaware of effective alternatives, have negative attitudes concerning restraint reduction, and may believe that they have a moral obligation to prevent all potential resident injuries even when the means of prevention – the use of restraints – is associated with injuries that are worse than those that the staff intends to prevent. Research has shown that some nursing home staff members have little or no training in the use of restraints and many cannot identify alternatives to restraint use. [16,17]

The results of a study that examined nursing perceptions regarding the use of restraints in long-term care reflected the widespread and erroneous belief that restraint reduction would require more staff and increased resident supervision. [18] The strongest predictors of restraint use appear to be staff attitudes and the proportion of residents with impaired mobility and behavioral symptoms. [19] Similarly, the personal attitudes of staff members (i.e., registered or licensed practical nurses and nursing assistants) have been found to be key determinants of intentions to use restraints. [12]

Studies examining the attitudes of nursing staff towards restraint use and the effectiveness of nurse, nursing assistant and aide education on restraint reduction have demonstrated that educating nursing home staff (particularly nursing assistants) about alternatives to restraints dispels misconceptions and can lead to significant reductions in the use of physical restraints. [18, 20-24]

Professional liability concerns

Although the use of restraints is often prompted by fear of litigation that could arise from resident injuries, no long-term care facility has been successfully sued solely for failure to use a restraint. [23,25] In cases won by plaintiffs against hospitals and nursing homes when fall-related injuries occur in the absence of physical restraints, the merit of the plaintiff's argument is not a failure to use restraints but a failure to recognize and address the underlying cause(s) of the plaintiff's falls. [26,27,29]

There is increasing awareness among defense attorneys and expert witnesses that clinical studies show that restraints are both ineffective in preventing falls and related to even more severe injuries when falls do occur. A retrospective study that examined 122 deaths caused by vest

It is estimated that restraints are an avoidable proximate cause of death in at least 1 of every 1,000 nursing home deaths. A number of cases have resulted in verdicts against hospitals and nursing homes for serious restraint-related injuries among residents. [26]

and strap restraints showed that most of the deaths occurred as a result of asphyxia while the residents were tied to chairs (58 percent of 122 cases) or beds (42 percent of 122 cases). [23]

Consequences of using physical restraints in nursing homes

Although recent studies have shown that physical restraints do not reduce the risk of serious injuries due to falls and in general do not provide net benefits to residents, restraint use continues and may have even increased in some regions. [27, 28] Restraint use has been reported to be associated with increased occurrence of serious fall-related injuries. [29] Restrained residents are more than three times as likely to be injured in a fall-related incident than are unrestrained residents. [29] While studies report negative consequences of restraint use, no study shows beneficial effects. The loss of resident autonomy, loss of freedom of movement and restriction of activities that restraint use entails adversely affect the physical and psychological well-being of elderly residents. These adverse effects can lead to increased morbidity and mortality among elderly residents. [29-32]

Adverse effects associated with the use of physical restraints include the following physical, psychological, cognitive, physiological and behavioral changes. [29,32-36]

Physical effects	• Accidental death by strangulation • Fall-related injuries and increased falls • Decreased muscle mass, tone, strength, and endurance • Skin trauma (e.g., tears, cuts and bruises)	
Psychological and cognitive effects	• Fear • Anger • Depression • Humiliation	• Emotional isolation • Loss of self-determination • Sad and anxious moods • Worsening of dementia
Physiological effects	• Bone demineralization • Cardiac distress • Constipation • Dehydration	• Incontinence • Orthostatic hypotension • Reduced appetite • Worsening of dementia
Behavioral effects	• Withdrawal • Anger	• Combativeness

Federal regulations regarding physical restraints

The Federal Nursing Home Reform Act of 1987 (OBRA '87) stipulated that elderly residents should never be subjected to physical or chemical restraints as a form of discipline, to ease staff work load, or as an alternative to addressing the underlying causes of the medical symptoms offered to justify the use of restraints. [2] Federal certification guidelines require that nursing homes use restraints only as required to ensure the physical safety of the resident and only when having a physician's written order specifying the duration and circumstances under which the restraints are to be used. Unfortunately, a liberal interpretation of this requirement leads to needless restraint use in an effort to provide physical safety. Ironically, restraints have been shown to increase the risk of serious falls and injuries rather than to confer physical safety for residents that fall. [29] Therefore, restraint use is never justifiable as a treatment for such residents.

All residents for whom restraints are being considered should be thoroughly evaluated for alternative interventions. Restraint use as shown earlier should be the last resort in providing patient care in these residents. As shown earlier, table 1 provides a list of situations in which restraint use might be unavoidable. Through proper resident-centered assessment and use of restraint alternatives, Texas physicians and nursing homes can reduce the use of physical restraints 10-fold (a decrease in restraint use prevalence from the current 19.5 percent to a justifiable prevalence of 2.2 percent) while providing greater safety and quality care to their residents.

Strategies for reducing restraint use

Successful restraint avoidance and reduction programs require the involvement of the entire nursing home staff and the leadership of physicians. Success also requires thorough assessments of residents' conditions, abilities and needs. The ultimate goal of restraint reduction is to eliminate the use of restrictive devices by gradually replacing them with the least restrictive interventions possible. [37]

A practical approach to restraint reduction is to work with nursing home staff to devise a resident-centered care plan that will eliminate the use of a physical restraint as quickly and safely as possible. The restraint reduction plan should include the staged substitution of alternatives, less restrictive measures that treat specific medical symptoms, and ongoing monitoring and revision of the care plan.

Studies of restraint reduction show that it takes an average of 3.3 simultaneous interventions to eliminate the use of restraints in a given resident. [38]

Alternatives to restraint use in nursing homes

Greater resident safety can be achieved through the appropriate use of adaptive devices than through the use of physical restraints. Beds can be lowered to reduce the risk of serious injury when patients fall. Bed and chair alarms can be used to notify staff members when patients get out of or significantly shift their weight in a bed or chair. [28] Other alternatives, such as wedge cushions, recliners, wheelchair modifications, physical and occupational therapy sessions, napping and toileting schedules, exercise programs, and stationing non-ambulatory residents close to nursing stations have all been shown to work in selected residents. [13] The best alternative to a restraint need not be a non-restraining device; some of the interventions in the preceding and following lists are alternative care practices rather than devices.

Specific examples of alternatives to physical restraints include: [39]

- Companionship and supervision using staff, family, friends, or volunteers to prevent residents from being alone, especially at night.
- Psychosocial interventions such as involving residents in conversations, having distractions such as television, radio, calendar, or clocks, and using therapeutic touch and active listening.
- Modification or elimination of treatments such as intravenous lines and nasogastric tubes to prevent the resident from disrupting medical devices.
- Modifications of environmental elements such as better lighting, a bedside commode, placing the patient close to nursing station, placing a mattress on the floor, leaving bedrails down, making sure that rooms are quiet and that the resident has an accessible call light, responding quickly to call lights, and providing special furniture (e.g., a low bed, modified wheelchair) may all help to prevent falls and improve patient safety.
- Other devices that may be used to reduce the perceived need for restraints include playing music tailored specifically to the patient, pressure-sensitive bed alarms, and toileting regimens that meet a resident's specific needs.

Conclusions

Although the primary intent of caregivers who use physical restraints appears to be to provide optimal patient care, research studies show that restraints pose greater risks than benefits to long-term care residents. Despite this evidence and regulations to curb the use of restraints, Texas nursing homes still show a high prevalence of restraint use – the majority of which contributes to poor resident outcomes rather than to patient safety.

The leadership role of Texas physicians in long-term care practice is crucial to the success of a statewide restraint reduction effort. As leaders and educators in long term care, Texas physicians must work with their nursing homes and their patients' families alike to educate them in the importance of eliminating the hazardous and largely ineffective practice of restraint use.

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