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Relationship between Nurse Training and Physical Restraints in Nursing Homes

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Walden University
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Abstract

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BA, University of Toledo, 1997

MSA, Central Michigan University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

According to the Centers for Medicare and Medicaid Services (CMS), approximately 1.3 million U.S. residents are residing in nursing homes. CMS enforced regulations in the Nursing Home Reform Act. Training in the use of restraints in nursing homes is monitored through the CMS standards. The purpose of this study was to determine whether there was a correlation between training standards of health care practitioners and their use of restraints in nursing homes based on the patterns of citations by RNs and CNAs. Data were collected from Kansas, Louisiana, and Ohio within the CMS Nursing Home Data Compendium. The key research question examined differences in standard training requirements, policies, and citations regarding restraint use in the selected states. The theoretical framework for this study was the social influence theory. The results of the analysis of variance indicated that between 2008 and 2012, there were significant differences in policy and standards requirements for the training of registered nurses and certified nursing assistants regarding restraint use; there was also a relationship between the training of staff and the number of citations of restraint use in Kansas, Louisiana, and Ohio. There were significant ($p \leq .02$) variations throughout the 3 states regarding the policies, procedures, and training expectations. The positive social change that could result from these findings is the standardization of training that may help decrease restraint use and become the foundation of more respectful and caring practices in nursing homes.

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Dedication

I would like to thank God for giving me the opportunity to fulfill the path that He positioned for me. Without Him, none of this would have been possible. Second, I would like to thank my family, my husband, Makenzy, who has been so supportive; my son, Dwayne; and my two daughters, Makenzy and Madisyn. To my mommy and loudest cheerleader, Terri, this is for you, our third degree for the "wall of fame." Thank you, Veronica, for getting me on track and making me stay focused. Last, I want to thank all of my friends for being so supportive. There are too many to name, but you know who you are. I love you all dearly.

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Chapter 1: Introduction

Introduction

Over the past several decades, researchers have shown an interest in studying nursing homes and ways to make them more like homes, not facilities that simply warehouse individuals who are older (Difabio, 1981). Many facilities have begun to give the individuals residing in nursing homes a renewed sense of autonomy, dignity, and rights so that they can have more control of their own well-being. The Social Security Act, Sections 1819 and 1919, requires facilities to comply with federal requirements regarding residents' quality of care and quality of life (Centers for Medicare and Medicaid Services [CMS], 2015). The CMS emphasized person-centered therapy (PCT), number of staff, individualized approaches to care, and engagement of residents and/or representatives in decision making. These regulations were based on the values of respect and freedom for the older population in various ways to include their right to take risks or make their own choices (CMS, 2015).

Several studies conducted under the auspices of the U.S. Department of Health and Human Services (DHHS, 2015) have examined the quality of care and quality of life of residents of nursing homes. According to various sources, most residents of nursing homes can have an improved quality of life (CMS, 2015). Nursing homes are moving toward the trend of setting up the facilities as more home like than institutional. Calkins (2003), a nationally recognized expert who specializes in helping organizations to create more supportive settings for older people, asserted that the older population tends to do well in these home-like environments. Nursing homes have the capacity to address the

residents' daily, medical, physical, emergent, and overall well-being needs. Adapting them to a more home-like setting allows the residents to have a controlled yet self-sufficient environment. Residents can still maintain control of their own lives, deciding what they eat (within the confines of their diets) and when they can get up or go to bed, and having the luxury of coming and going as they please.

To decrease the mental and physical deterioration of residents of nursing homes, it is important that they live in an environment that is vastly similar to their home setting (DHHS, 2015). Residents need to feel that they have the autonomy to make decisions in their lives and maintain that control of their lives (CMS, 2015). Nursing homes can give them the independence that they want and deserve, along with the availability of health care and staff to assist whenever there is an imminent need that might not be provided in the home setting. Nursing homes provide secure and safe environments for residents. They have mechanisms in place that ensure a safe living environment for the residents. Examples include equipment that is fall proof, chains that can be pulled inside the restrooms, call buttons for nursing assistance, and the assurance that medications are being taken at the appropriate times and at the correct dosages.

Nursing homes have received negative publicity about the inappropriate use of physical restraints. Although physical restraints were initially intended to be protective devices, nursing homes have been criticized by various state departments of social services for their use, benefits, and effects of physical restraints (CMS, 2015). Questions have been raised whether restraint use actually prevents falls and injuries and improves the residents' quality of life. The use of physical restraints has been associated with such

negative consequences as nosocomial infections, pressure sores, and death (Lund & Sheafor, 1985). With time, innovation, and change, the image of nursing homes will be one of adherence to federal regulations and the provision of safe havens comparable to the residents' former homes. It was important for this study to be conducted because the review of relevant literature found scant information about the use of restraints; this topic was studied for its beneficial and detrimental effects (Castle & Mor, 2013).

Background

Physical restraints that inhibit voluntary movement are sometimes used in acute and long-term care (LTC) settings to prevent injuries and protect residents. The U.S. Food and Drug Administration (FDA, 2015) and the CMS (2015) defined a *protective restraint* as any device that restricts movement and cannot be removed easily. The CMS described the use of a physical restraint as the application, monitoring, and removal of mechanical restraining devices or manual restraints to limit physical mobility. All such devices have to be labeled for their intended use. Restraints include vests, wrist restraints, geriatric chairs with tables, side rails on beds, and others (CMS, 2015). Although the intended use of restraints is to prevent harm, restraints neither decrease the number of falls nor ensure freedom from injury (Lofgren, MacPherson, Granieri, Myllenbeck, & Sprafka, 1989). The severity of injury experienced by some restrained residents could actually increase.

Residents who are restricted, are confined, or have a lack of control tend to be confused because they are being restrained. Restraints often are used when people are a danger to themselves or others. Restraints should never be used for the convenience of

staff caring for the residents or as a substitute for nursing care (National Executive Training Institute [NETI], 2011). Systematically, assessments are completed by licensed practitioners, who determine the type of physical restraint required based on the individual's level of confusion, be it through objective observations or the behavior manifesting as the result of drugs, alcohol, pain, fear, exhaustion. Federal standards for the use of restraints require that they be used only to ensure the physical safety of the individual or others; in addition, they are subject to a written order from a physician or another licensed practitioner permitted by the facility and state law (CMS, 2015).

Evidence has been limited, and there has been a significant knowledge gap in the discipline of physical restraint use based on the review of relevant literature that was found to be scant in the information about the use of restraints; this topic was studied for its beneficial and detrimental effects (Castle & Mor, 2013). This study was needed to research physical restraint use and identify areas of need, such as the development of mandated policies and standardized protocols that address training requirements for health care practitioners on restraint use in nursing home facilities.

Problem Statement

The use of restraints in nursing homes has resulted in actual harm and immediate jeopardy to the health and safety of the residents (CMS, 2015). In 1998, the Harvard Center for Risk Analysis estimated the annual number of deaths resulting from such practices at 150 nursing facilities across the nation (as cited in Spilsbury, Hewitt, Stirk, & Bowman, 2011). The residents of nursing homes appear to be at particular risk of injury because they cannot care for themselves and depend solely on health care practitioners to

assist them. Restraint use is the least restrictive approach to ensure the health and safety of residents, and it should be based on the policies and protocols of the nursing homes in question (CMS, 2015). Although evidence has been limited, Schnelle et al. (2004) questioned the detrimental effect of physical restraint use on individuals in nursing homes. The General Accounting Office and the DHHS Office of the Inspector General both have noted the lack of data related to the use of restraints (as cited in Joint Commission on the Accreditation of Healthcare Organization [JCAHO], 2013). The use of restraints varies dramatically among facilities, along with facility and staff knowledge on ways to prevent and avoid such use. According to Castle and Mor (2013), a growing number of stakeholders have developed guidelines for the use of restraints, but the quality of these guidelines has yet to be determined, and their widespread application has yet to be documented. There has been broad agreement that training and technical assistance are priority needs (CMS, 2015). It also is known that sentinel events (e.g., abuse and injuries) resulting from the use of restraints occur in settings that currently have no national guidelines.

Although limited, some research has been conducted on the use of physical restraints on older residents of nursing homes (Strumpf & Evans, 1988). Section 6102 of the Affordable Care Act (ACA) mandated that nursing homes follow ACA guidelines that compliance rest with high-level personnel with sufficient resources and authority and that effective and practical compliance training and education be available (CMS, 2015). Nursing homes provide a high level of support to meet the needs of residents. They can look like private homes, but they can function like hospitals. In these types of settings,

staffs provide residents with assistance with personal care, medical issues, as well as budgeting and financial concerns. Licensed physicians and nursing staff are onsite and available 24 hours a day. The size of contemporary nursing homes also has decreased and has become more community based (i.e., more of these facilities are being built in residential communities and blend in well). People who reside in these facilities have more privacy, access to private baths and living room quarters, and the option of having a roommate or living alone. They also can cook for themselves or eat meals prepared by facility staff.

The nature of taking care of the residents in nursing homes can be challenging. In caring for the residents, nursing staff sometimes must carry out actions that limit the residents' freedom of movement for reasons of quality care; practical considerations or necessity also can play a part. Some researchers have discussed the prevalence, reasons, and physical consequences of restraint use. One reason is the level of care needed to protect residents from self-harm.

The DHHS (2015) evaluated efforts to reduce the use of physical restraints after congressional passage of the 1987 Nursing Home Reform Act. Because of the work of practitioners, providers, advocates, and government agencies, the percentage of nursing home residents physically restrained daily substantially declined from 21.1% in 1991 to less than 5% in 2007 (Turnham, 2015). Freeing nursing home residents from being restrained unnecessarily is one of the great successes of the 1987 Nursing Home Reform Act. Codified as Sections 1819 and 1919 of the Social Security Act, the landmark legislation declared that every nursing home must protect and promote the rights of each

resident, including, “The right to be free from . . . any physical or chemical restraints imposed for purposes of discipline or convenience and not required to treat the resident’s medical symptoms” according to Section 1819(c) (1) (A) (ii), and Section 1919(c) (1) (A) (ii) of the Social Security Act (2015).

When the Nursing Home Reform Act was adopted in 1987, restraint use was widely accepted as a way to manage the behavior of residents who wandered, were agitated, or simply needed to be restrained. However, the standard use of restraints was not supported by research indicating that physical restraints had serious negative effects (Turnham, 2015), including placing residents at risk of death from asphyxiation. The standard was not supported by a growing body of regulators, practitioners, providers, and advocates. The 1987 law crystallized a growing consensus against the use of restraints throughout all sectors of nursing home service delivery, and it eventually led to a complete change in how restraint use was viewed. According to Farragher (2004), physical restraint use remains a highly debatable topic. In today’s health care climate, professionals in the mental health care sector and others are trying to minimize, if not eliminate, the use of restraints (Jonikas, Cook, Rosen, Laris, & Kim, 2004).

Although the notion of eliminating the use of restraints can be promising for the future, several issues need to be considered first. For instance, how people in general perceive the use of physical restraints must be assessed. Further, how is it being used, and at what rate, must be assessed. Once these factors have been addressed, the next step is to identify the type of training necessary to deescalate situations and avoid all use of restraints. The results of this study provide insight into the staff training and education

needed regarding the use of physical restraint. The results might help to identify areas of concern, satisfaction, training, policy, and law that might need to be improved or refined. The results could facilitate change in the way nursing homes view restraints, train employees, and reduce the negative implications of the use of restraints (Jonikas et al., 2004). This study addressed the gap in the literature by providing a better understanding of the use of physical restraints, the training and educational needs of staff, and the need for policy changes in the use of restraints.

Purpose of the Study

The purpose of this quantitative study was to determine the correlation between training standards and the use of restraints by registered nurses (RNs) and certified nursing assistants) CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs. Federal and state standards for RNs and CNAs served as the independent variables (IVs). The dependent variable (DV) was the number of citations of restraint use (i.e., Citation H: actual harm; Citation K: immediate jeopardy of residents in nursing homes).

Research Questions

The study was guided by three research questions (RQs):

RQ1: What were reasons for the use of restraints on residents in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012?

RQ2: Were there differences in policy and standards requirements for the training of registered nurses (RNs) and certified nurses' aides (CNAs) regarding restraint use in Kansas, Louisiana, and Ohio between 2008 and 2012?

H_{02}: Between 2008 and 2012, there were no significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

H_{a2}: Between 2008 and 2012, there were significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

RQ3: Between 2008 and 2012, was there a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio?

H_{03}: Between 2008 and 2012, there was no relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

H_{a3}: Between 2008 and 2012, there was a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

Theoretical Framework

Rogers (1959) theorized that the principles PCT can be applied in a variety of contexts, not just the therapeutic setting. PCT is an approach that includes personality, education, nursing, interpersonal relations, and cross-cultural relations. PCT posits that

any client, regardless of the problem being experienced, can improve without being taught anything specific by the therapist, once the individual accepts and respects him or herself (Shaffer, 1978).

Katz and Lazarsfeld (1955) explored how power can influence behavior. Katz and Lazarsfeld also studied the effect of the mass media on behavior to develop their social influence theory. The three constructs of social influence are conformity, compliance, and obedience. People are driven to conform to group behavior, and conformity is a type of motivation that compels people to do what other people do, rather than accept their own values or beliefs. The need to conform might help to explain why some people are followers instead of leaders, why they value other people's views and perceptions over their own, and why they uphold those perceptions, even if they do not believe them. Conformity and physical restraint use are interrelated, and conformity adds to the continuation of the problem instead of acting on "change."

Argyris and Schön (1978) developed the concepts of single-loop and double-loop learning. Single-loop learning is the process in which a mistake is corrected by using a different strategy or method that is expected to yield a different but successful outcome. Organization learning theory impact the training of nurses. Application of organizational theory to nursing structure leads to better patient care. By conducting research in this area, the researcher was able to identify some of the training needs for nurses as well as ways to standardize the training of health care practitioners.

Nature of the Study

The researcher hypothesized that there has been a higher rate of restraint use in states with few to no standards regarding their use by health care practitioners. The physical and emotional stress of managing residents through the use of restraints has had an adverse effect on the staff that cares for these residents. Staff members who have received education and information about ways to manage residents without the use of restraints have been able to use restraint-free care plans more often, thereby reducing injury to residents and stress on staff. The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs.

A causal-comparative study design allowed the researcher to identify differences in restraint use and training standards in the nursing homes chosen for this study. The researcher reviewed some of the more common situations that required restraints while comparing the training standards of staff in this field. Data from the CMS (2015) were collected and analyzed. The researcher also reviewed the percentage differences in the number of citations regarding actual harm and immediate jeopardy to residents in nursing homes. The data were then compared to national and state standards regarding the training of staff.

Definitions of Terms

Certified nurses' aide (CNA): A person who assists nurses at a hospital or other medical facility in tasks requiring little or no formal training or education (CMS, 2015).

Health care practitioners: For the purposes of this study, health practitioners were defined as RNs and CNAs (DHHS, 2015).

Citations: For the purposes of this study, citations were defined as the percentages of surveys indicating a substandard quality of care (SSQC), resulting in some form of abuse based on three components: restraint use; Citation H, actual harm that is not an immediate jeopardy; and Citation K, immediate jeopardy to residents' health or safety (CMS, 2015).

Nursing homes: These facilities might be independent or part of a continuing care community. They provide 24-hour medical care and custodial care. Residents might be there temporarily for rehabilitation, or they might be there for LTC (CMS, 2015).

Physical restraints use: Any use of trunk restraint, limb restraint, or restraining chair at least once in the past 7 days. Bedrails are not included (CMS, 2015).

Residents: Individuals who reside in nursing homes (DHHS, 2015).

Staff: Individuals who are paid to provide specific services. An example would be trained professionals who are needed for a limited period of time following an injury or illness (DHHS, 2015).

Assumptions

The researcher made the following assumptions:

- The education of health care practitioners working in nursing homes would decrease the use of restraints.
- The increased education of health care practitioners working in nursing homes would lead to a reduction in the number of citations related to physical restraint use.
- Nursing homes received multiple citations for incidents regarding restraint use and additional citations of actual harm that was not immediate jeopardy and actual harm that was not immediate jeopardy when injury is involved.
- Training standards would improve expectations of restraint use.

These assumptions were necessary because if nursing staff were to be educated formally on the proper use of restraints, the result could be a reduction in the number of citations based up the CMS (2015) data. By standardizing the training of health care practitioners, new standards requirements would have to be followed, and potential policy changes would have to be made and adhered to according to the new standards developed with input from health care practitioners.

Scope and Delimitations

The researcher reviewed data collected from the CMS (2015) on restraint use and patterns of citations by RNs and CNAs. Data from these nursing professionals were chosen to provide information about federal and state standards and training requirements for RNs and CNAs. The data were determined by the researcher and collected across

three randomly selected states, namely, Kansas, Louisiana, and Ohio, to support the hypothesis that there has been a higher rate of restraint use in states with few to no standards regarding their use by health care practitioners. There were no other theories considered for the framework for this study.

Limitations

This causal-comparative design was useful for measuring the number of citations, but it did not allow for the inference of causal relationships regarding the use of restraints and training requirements. The extent of this study was limited to RNs and CNAs, along with restraint use citations and pattern citations that indicated either actual harm or harm that was not immediate to residents' health or safety. The researcher conducted a comparative review of national standards and state standards regarding competency and training requirements in using restraints to determine whether there was a standardized process across states. Randomization was not possible in this causal-comparative study because of the control of comparing nursing home citations based on CMS standards (Gall, Gall, & Borg, 2010). There also was the possibility of participant selection bias. To reduce these threats, the researcher used statistical matching by implementing a fair comparison between outcomes and the comparison population data source that provided equal information for a complete study population. The CMS Nursing Home Minimum Data Set (MDS) contains records of all stays in certified nursing facilities (CMS, 2015).

Significance

The practices that modify specific behavioral change models can contribute to reducing the use of physical restraints if they are implemented in ways that have a

positive influence on health outcomes. Gore (1999) suggested that individual and cultural considerations are necessary to assess individual perceptions in relation to restraint use. Lane (2011) asserted that it is important for nursing staff to understand the health care culture that perpetuates the use of restraints and to consider patient-centered nursing as one way to provoke change. Knowledge of the effect of restraint use on residents has been limited. The results of this study might generate positive social change by empowering health care practitioners to address the use of physical restraints through training and education. Knowledge, training, and education might provide opportunities for innovative interventions to address the inappropriate use of and reasons for physical restraints.

Summary

The goal of this study was to examine the training and number of citations given to nursing homes related to their use of physical restraints. Training and education can provide the health care professionals working in nursing homes with an understanding of the ways to address physical restraint use in the future and identify the factors influencing the improper use of physical restraints. The social influence theory provided a framework to explain why and how health practitioners can address this situation. Chapter 2 presents a review of relevant literature on the use of physical restraints.

Chapter 2: Literature Review

Introduction

The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs. This chapter includes a review of literature related to the use of physical restraints in nursing homes; a discussion of nursing and psychiatric hospitals' underreporting their use of restraints, nursing interventions, effective management of residents, informed consent, and federal regulations. The number of studies related to this topic has been limited, and the results of many studies have become outdated. More research is needed to understand the effects and experience of the use of physical restraints in nursing homes.

Literature Search Strategy

The researcher searched for published and unpublished full-text and peer-reviewed literature from a variety of online sources: Academic Search Premier, Walden University Library, ProQuest, Medline, and Google. The researcher used the following search terms: *nursing home facilities, physical restraint use, nurses, health care practitioners, state standards, training standards, social influence theory, person-centered therapy, social impact, types of physical restraints, nursing interventions, federal regulations, effective management of residents, physical restraint use reporting,*

effects of restraint use, and *families and restraint use*. The researcher identified 64 useable but significantly outdated articles from 200 searched articles.

Theoretical Framework

Gardner (as cited in Small, Loewenstein, & Slovic, 2010) explored social cognition theory that translated experiments of personal perceptions. Asch's (1946, 1952) research, which was at the individual level, might have influenced his interest in social interactions or groups. Social influence theory specifies that individual perceptions and behaviors are influenced by the perceptions and behaviors of the members of the groups and personal networks that people belong to (Katz & Lazarsfeld, 1955). It is human nature to behave in certain ways in various places and at different times.

Haynes, McDonald, Garg, and Montague (2003) conducted research on behavioral influences and perceptions to understand the low levels of adherence to treatment protocols. Social psychologists have had limited knowledge of the mechanisms responsible for compliance. Autonomy also influences intentions via other motivational constructs proposed by the self-determination theory (SDT), such as intrinsic motivation (Chatzisarantis, Hagger, Biddle, Smith, & Sage, 2014). These theories of social interaction and factors determine autonomy; they also have aligned with the SDT. Rogers (1959) theorized that his principles regarding PCT could be applied in a variety of contexts, not just the therapeutic setting. These theories (i.e., SCT and PCT) were presented to describe the many ways in which behavior can be interpreted. These theories also helped the researcher to explain why physical restraints have been and continue to be used.

Festinger and Carlsmith (1959) asserted that there are several advantages in distinguishing between pressuring and nonpressuring forms of social influence. They suggested that behavioral, intentional, and attitudinal choices can be the result of pressuring and nonpressuring forms of social influence. They developed the cognitive dissonance theory based on this assertion.

Social influence refers to behavioral changes that one person causes in another (Small et al., 2010) in three areas of social influence: conformity, compliance, and obedience. Conformity refers to changes in behavior to be more like others. Conformity might even see individuals change their beliefs and values to be like peers and admired superiors. Beliefs, values, or behaviors can be influenced by others within the group (Asch, 1946). People can be influenced subtly or unconsciously by others, and according to Asch (1952), they will change their attitudes or behaviors to conform to the desired social norms. Compliance involves doing something that others have asked or requested. Compliance has an element of choice, whereas obedience refers to compliance with an order from an authority figure (Small et al., 2010).

The conformity construct of the social influence theory supports the theoretical framework. Rogers's (1959) PCT focuses on care that requires a sustained commitment that can involve ongoing training and education of clinical teams that include RNs and CNAs. According to McCormack, Dewing, and McCance (2011), one of the key considerations for all organizations in the development of PCT was to move from person-centered moments (individual, ad hoc experiences of person-centeredness) to person-centered care as an underpinning culture of teams and organizations. PCT as an approach

to practice was established through the formation and fostering of therapeutic relationships among all care providers, patients, and others significant to them. PCT is based on respect for persons, individual right to self-determination, mutual respect, and understanding (McCormack et al., 2011).

Recent ethnographic studies of workplace practices have indicated that the ways people actually work are fundamentally different from the ways that organizations describe that work in manuals, training programs, organizational charts, and job descriptions. Nevertheless, organizations have tended to rely on these resources to understand and improve workplace practices. Changes regarding physical restraint use within the health care practitioner community will take collaboration and the development of strategies and goals with expected outcomes that can be implemented, tested, and proven effective.

A suggested improvement strategy toward meeting goals and expected outcomes regarding social change is to get the health care community involved so that they can be educated and trained in new initiatives to decrease and/or eliminate the use of physical restraints. Care planning is another step to getting residents more involved in various activities. Keeping residents active and having a structured environment can decrease the use of physical restraints. Improvement strategies also might mean getting the families of residents and/or the residents themselves involved to support such changes. Ongoing assessments and quality reviews will assist with quality improvement and monitoring to determine whether the standardized plans are effective. Further research will identify the efficiency and effectiveness of any new initiatives and methodologies.

Minnesota Statutes

Minnesota passed a law in 1999 (Minnesota Statutes) establishing explicitly the right of residents' decision makers to request physical restraints. The law also specified that legitimate medical reasons for using a physical restraint had to include "1) a concern for the physical safety of the resident; and 2) physical or psychological needs expressed by a resident. A resident's fear of falling being the basis of a medical symptom" (Section 144.651, Subdivision 33). Research conducted in the 1980s has indicated that restraints were more likely to cause harm rather than prevent it because of strangulation, bone loss, or patient weakness (Turnham, 2015). Being restrained often led to residents feeling embarrassed or angry. Many nursing home residents also became depressed, agitated, or withdrawn. The CMS (2015) identified a direct relationship between an increase in the number of falls and serious injury; likewise, when the use of physical restraints declines, so, too, does the number of falls, other serious injury, and behavioral problems. Castle and Mor (2013) found other research indicating that the use of physical restraints in nursing homes has fluctuated between 4% and 68%.

Favorable Ways of Restraining

There are favorable ways of physically restraining residents so that they are not injured and decreasing the number of incidents associated with restraint use. Physical restraints can be any number of items: For example, belts can be used to tie residents into their beds, vests can hold residents in beds or chairs, specialized chairs can keep residents seated, and restraint systems can immobilize residents' arms and legs. Even bedrails can be considered a form of restraint because they curb free and purposeful movement from

the bed (Castle & Mor, 2013); however, they are generally not subject to the same strict application guidelines as other restraints.

In the past, it was far more common to see residents being confined to bed through the use of restraints. Medical staff used them in the belief that they were in the residents' best interests (Konetzka, Brauner, Shega, & Werner, 2014). The wide variation in the numbers reported on the use of restraints has likely been related to different definitions (e.g., when bedrails are considered restraints, restraint could be as considered as high as 100%; Birkett, 2001). The sample sizes in different studies, and the type and characteristics of the care settings being studied long-term skilled nursing facility and the general characteristics of the residents and residents involved, to include psychiatric morbidity and cognitive status (Birkett, 2001).

Legal Case Studies on Restraint Use

Several legal case studies that involved restraint use (as cited in Czyzewski, Sheldon, & Hannah, 1986) believed that standards, protocols, and policies should always be addressed. In 1971, a documented case involved residents who had been diagnosed with mental illness and mental retardation (as cited in Castle & Mor, 2013). This was one of the first cases to address procedures that were more restrictive, including the use of physical and mechanical restraints. These procedures that staff had to follow included clear guidelines; as an example, staffs were expected to document check-in times and follow the time limits. The use of restraints had to include the monitoring and documentation of any type of restraint that had been authorized. Documentation required staff to record the time, location, and duration; type of restraint used; schedule of periodic

checks; and reasons for the behavior that required restraints. Another standard described was that restraints could be used on an emergency basis to either decrease or prevent injury to the individual and others involved. Policies and procedures were developed to explain the use of restraints, and lastly, staffs were made aware of the consequences of the inappropriate use of restraints, such as punishment of the resident or convenience of staff (Czyzewski et al., 1986).

Mental Health Commission Code of Practice

The Mental Health Commission (2014) published a Code of Practice on the Use of Physical Restraint Use and Approved Centers pursuant to Section 33(3) (e) of the Mental Health Act 2001 and public knowledge on the Code of Practice on Physical Restraint. This information continues to be used as a resource by professionals in the field as well as agencies that are regulated by the CMS (2015). However, researchers such as Wright (1999) have continued to question the safety and efficacy of physical restraints.

Methods of Restraint Management

Restraints in any form are meant to manage aggression. Several methods, including medication, seclusion, and deescalation, have been used in facilities and residential settings to decrease aggressive behaviors; however, researchers from the American Health Care Association (AHCA, 2015) have agreed that restraint use cannot be eliminated completely from these settings. Therefore, one factor that needs to be considered is understanding the ways in which staff in these settings can and must be, trained to use restraints in the most safe, ethical, respectful, and professional ways

possible. It was important to obtain feedback from staff on their feelings about, attitudes toward, and experience with restraint use. This information can help to improve future training and prevent unintended injuries or consequences and accidental deaths associated with improper restraint use.

Role of Health Care Professionals in Patient Safety

Wright (1999) mentioned that the role of health care professionals is to ensure the comfort, care, and safety of patients. Wright investigated the views or feelings of staff about the need for training and education in the use of restraints, perspectives that reflect how staffs interact with residents and/or individuals in terms of treatment and/or restraint use. Konetzka et al. (2014) studied the use of physical restraints and antipsychotic drugs on nursing home residents with severe cognitive impairments. They found a substantial decline in physical restraint use in nursing homes, which are subject to report their use in public forums, whereas smaller facilities are exempt from reporting. Although the larger nursing home facilities reported a decrease in physical restraint use, there was a substantial increase in restraint use with antipsychotic drugs. Antipsychotics are used to treat dementia, however, there are significant dangers associated with its use. In 2015, the FDA issued a black box warning, the strictest warning label on prescriptive drugs or drug products that they are hazardous to human health.

Public Reporting

Public reporting can be a blessing and a curse. Konetzka et al. (2014), for example, reported that there was an increase in the use of antipsychotic drugs and a decrease in the use of physical restraints in nursing homes over a 4-year time frame.

However, what they did not report were the unintended consequences. Transparency can expose many issues, such as the increased use of antipsychotic drugs and the appropriateness of physical restraints. Incentives have been imposed on nursing homes by the CMS to decrease the use of physical restraints, but this type of decrease can increase the use of another type of restraint: chemical. This situation indicates how residents are being treated and how it can affect the quality of care. With this type of information, there is no true sense of what has been proven to be efficient.

The American Health Care Association

The AHCA (2015) and the CMS (2015) investigated ways to reduce the use of antipsychotic drugs in nursing homes as a form of restraint. In 2014, Konetzka et al. conducted a study to reduce the use of antipsychotic drugs and move towards a more PCT approach to care. They concluded after reviewing the total number of nursing home residents who had been restrained either physically or chemically in a period of 20 years.

Federal Nursing Reform Act 1987

The Federal Nursing Reform Act of 1987 (Turnham, 2015) stated that nursing home residents are guaranteed the right to be free from physical or chemical restraints imposed for the purposes of discipline or convenience, not to treat residents' medical symptoms. Researchers such as Konetzka et al. (2014) have suggested that implementation of the Federal Nursing Home Reform Act (Turnham, 2015) led to the increased use of drugs as a restraint. Although psychotropic drug use has ebbed and flowed over the years, physical restraint use has declined from 21.1% in 1991 to approximately 3% today (Konetzka et al., 2014).

Nursing Homes and Restraint Use

Many nursing homes use some form of restraint for various reasons, such as protecting their businesses and avoiding liabilities associated with accidents. Restraints also are used to protect residents from injuries that could be fatal. Langslow (1999) reported that nursing homes that experience high staff turnovers use restraints as a mechanism of convenience. With a culture that accepts the use of restraints, RNs and CNAs continue to use restraints because they fear being assaulted or because they want to deflect anticipated incidents based on their familiarity with residents and their past behaviors.

When used together, the terms *restraint* and *abuse* have been linked historically to violence, control, and mental illness. Physical restraints have been and continue to be used to contain individuals with altered mental status; prevent interference with treatment; or prevent harm to self or others from falls, wandering, and agitation (Touhy, Jett, Ebersole, & Hess, 2012). According to Cheung and Yam (2004) as well as Touhy et al., despite the literature exposing the potential for multiple problems resulting from restraint use, restraints are still considered a viable and useful intervention in managing disruptive behaviors in acute and LTC settings.

Centers for Medicare and Medicaid Services

The CMS (2015) clarified the terms used in the application of physical restraints in LTC facilities (LTCFs). The CMS remains committed to reducing the use of physical restraints in nursing homes and ensuring that residents are free from physical restraints unless their use is authorized by specific regulations. The CMS further clarified what

constitutes a *medical symptom,* defined as an indication or characteristic of a physical or psychological condition. Objective findings of clinical evaluations and residents' subjective symptoms should be considered to determine what constitutes a medical symptom. Subjective symptoms must not be the only consideration for using restraints. In addition, residents' medical symptoms should not be viewed in isolation, but in the context of the residents' conditions, circumstances, and environments (CMS, 2015).

Physical Restraints

Physical restraints should be used as interventions that are temporary. Individuals should not be restrained because of medical conditions or symptoms, and health care practitioners or caregivers who restraint individuals for those reasons should be held accountable for their actions. The CMS (2015) issued a memo to the public that provided clarity about restraint use as well as the repercussions of improper use.

In this study, physical restraints were the mechanical devices applied to residents to impair their mobility. They included, but were not limited to, vests; waist, wrist, and ankle restraints; geriatric chairs; wheelchairs with fixed tray tables; or any other devices used to restrict residents to certain areas or locations. Side rails are considered a restraint only when two full lengths of rails are used. The use of seclusion in the treatment of agitated and older psychiatric residents usually is not considered a restraint. The review of relevant literature found scant information about the use of seclusion as a restraint; it should be studied for its beneficial and detrimental effects (Castle & Mor, 2013).

There are many other forms of restraint other than physical ones. One alternative is the use of chemical restraints via psychotropic medications. The use of medications

like benzodiazepines, antipsychotic drugs, and other sedative medications can have unpredictable effects on older individuals and might actually contribute to residents' confusion or agitation (Schnelle et al., 2004). A phenomenon known as sun-downing is frequently observed with the use of chemical restraints: Older residents become more agitated in the early evening hours, especially after receiving sedative medications (Schnelle et al., 2004). Sun-downing also is a component of the dementia process, with or without medications.

When used correctly, the various types of restraints available generally are considered effective in the management of residents who are at risk of falling, wandering, manifesting aggressive behaviors, and others. The regulations directing the ordering and use of restraints, as well as the monitoring of residents while in restraints, ensure that the inherent safety of the restraints is carefully considered in every case. Restraint orders can no longer be used on an as needed basis, and residents who require restraints must usually have the orders rewritten every 8 to 12 hours after evaluations by licensed health professionals (Konetzka et al., 2014). Far from being benign instruments used only to hold residents in place, restraints have been associated with serious comorbid conditions such as increased behavioral problems; decreased physical activity that can result in increased physical disability, pressure sores, and incontinence; and direct trauma as a result of resisting the application or continuation of the restraints (Knox & Holloman, 2011).

Ensuring resident safety is one of the main reasons cited for the use of restraints. Numerous researchers have reported that the use of physical restraints is unlikely to

prevent falls (Catchen, 1983; Lund & Sheafor, 1985; Lynn, 1980; Mion, Frengley, Jakovcic, & Marino, 1989). Direct deleterious effects of restraints, including death by strangulation, hypoxic encephalopathy secondary to strangulation, skin abrasions, decreased socialization, and psychological distress, have been reported (Schnelle et al., 2004). Other effects indirectly associated with physical restraints have been caused primarily by the residents' prolonged immobilization and have included decreased functioning, pressure sores, flexion contractures, pneumonia, and biochemical and physiological changes (Gillick, Serrell, & Gillick, 1982; Lofgren et al., 1989; Miller, 1975). The use of physical restraints to prevent disruptions in therapy, for example, intravenous lines and nasogastric tubes, often is seen in the acute care setting. Approximately half of the residents who die in these settings have been physically restrained, and many have died with the restraints still in place (Frengley & Mion, 1986; Lofgren et al., 1989; Robbins, Boyko, Lane, Cooper, & Jahnigen, 1987).

Nursing interventions involving placing residents in restraints has been a concern. The interventions currently in use are based on guidelines that might not have been optimal. DiFabio (1981) interviewed 15 nurses working in resident nursing homes where the use of restraints was common. DiFabio reported that the nursing staff experienced anxiety, feelings of inadequacy, hopelessness, frustration, guilt, and dissatisfaction regarding the use of restraints. Strumpf and Evans (1988) studied the use of restraints in nonpsychiatric residents and found that the nursing staff had difficulty reconciling the administration of restraints with concerns about the residents' dignity and autonomy.

The use of restraints can be difficult on staff and residents. Residents often are placed in restraints more often "because we have always done so with this kind of resident" (Harrington, Zimmerman, Karon, Robinson, & Beutel, 2000, p. S278) rather than on the basis of any science indicating that the use of restraints is beneficial to the residents. Data recommending alternative devices as effective in the management of confused or persistently agitated residents have been limited and inconclusive.

Knox and Holloman (2011) conducted research related to seclusion and restraint. They examined issues related to the reduction or elimination of restraint use with individuals who had behavioral issues, whether they were in crisis situations, in hospital, or in other facilities. They used Project BETA, which comprised the best practices in the evaluation and treatment of agitation. Project BETA was a de-escalation technique that was not as evasive as physical restraint and had guidelines that addressed individuals' agitation. The technique worked with agitated individuals, and it gave knowledgeable and skillful medical professionals the ability to evaluate and manage them. Some residents can be deescalated to their normal state through the use of verbal de-escalation, whereas others might require some form of medication.

Jonikas et al. (2004) introduced an advanced crisis management program, Nonviolent Crisis Intervention (NCI), to reduce the use of physical restraints in three psychiatric units of a university hospital. NCI was a safe behavioral management system designed to help human service workers to provide the best possible care to assaultive, disruptive, or out-of-control persons, particularly during their most violent moments. The training focused on prevention, de-escalation, personal safety, and physical intervention.

Based on the research of Klauber and Wright (2001), nursing home residents have the right to be free of any physical or chemical restraints imposed for the purposes of discipline or convenience, not to treat medical symptoms. Before passage of the Federal Nursing Home Reform Act of 1987 (as cited in Turnham, 2015), approximately 40% of nursing home residents were physically restrained (Klauber & Wright, 2001). Data found these numbers to be closer to 12% in the early years of the 21st century, a decrease that pales in comparison to the 5% rate of restraint use with similar resident populations in Europe (Klauber & Wright, 2001).

Hingley (1984) stated, "Every day, the nurse confronts stark suffering, grief and death and few other people do. Many nursing tasks are mundane and unrewarding. Many are, by normal standards, distasteful and disgusting. Others are often degrading; some are simply frightening" (p. 22). The work-related stress of nursing is universal. The multiple demands placed on nursing staff can lead to work overload and possibly role conflict. One of the goal conflicts related to stress in the nursing profession is the idea that nursing should involve making the residents of nursing homes well, providing residents with emotional support, and relieving residents' stress. When comparing these goals to the management of possibly confused and possibly agitated residents requiring restraints, it becomes evident that at times, the stress levels of nursing staff can be critical and even unmanageable.

Research on stress related to nursing has attempted to quantify the effects of such stress on nurses' health and well-being (Hingley, 1984). In general, researchers have agreed that work-related stresses generally detracts from the quality of nurses' work; can

increase the incidence of minor psychiatric morbidity; and might contribute to musculoskeletal problems, stress, and depression (Grant, 1993). A significant negative relationship has been identified between the burnout rates of RNs and CNAs and their perceptions of access to support, information, and resources in the acute care setting (Laschinger, Finegan, & Shamian, 2001). Ryan and Peterson (2004) described one instance that can trigger the use of restraints, namely, during transition times that can occur during holidays, weekends, and significant occasions.

Fryer, Beech, and Byrne (2015) reviewed staff issues and concerns about the use of restraints. The participants in their study worked in nursing homes and described feeling threatened or unsafe. They also acknowledged that when there was a lack of communication, the likelihood of using restraints was imminent. Social support from coworkers and managers also has been closely linked to decreases in occupational stress and burnout. Personality factors add to the response to stress in the workplace setting in shaping work outcomes.

The effect of stress on the nursing profession cannot be underestimated. Nurses can care for others only after they care for themselves first. The negative effects of stress can be internal, external, major, minor, or adaptive, and they can be rooted in nurses' occupational stress levels. Negativity affects residents in negative ways. Stress assessments and unit-specific stress management sessions need to be integrated into the health care environment through the implementation of comprehensive stress management programs (Grant, 1993).

Ethical and practical reasons for using restraints must be considered when caring for the geriatric population. De Vliegher, Paquay, Vernieuwe, and Van Gansbekeh (2010) conducted a study on nurses' experience using electronic nursing records (ENRs) to determine whether ENRs affected the care that the residents in the nursing home in the study received. The researchers found that the use of ENR eased the learning curve regarding patient care and documentation and improved the accuracy of drug information.

Whenever the use of restraints is being considered, it is important that all members of the health care team understand not only the federal regulations but also the policies of the facility concerning the use and monitoring of restraints. The same can be said for the knowledge of standard for restraints published by the JCAHO (2013). These regulations and guidelines have been based on medical research on the use of restraints and a trend in the health care community toward improving the quality of life and health care of residents in LTCFs.

The CMS (2015) specified that all staff in hospitals and residential facilities receive training in crisis intervention strategies. The Joint Commission Code of Federal Regulations (CFR) 482: Medicare and Medicaid Programs: Hospital Conditions of Participation-Patient Rights specify the rules and training requirements, which include competency in the application of restraints. These competency applications include periodic refresher training; training in the use of nonphysical intervention skills; and information about and recognition of symptoms of patient distress, such as positional asphyxia. The most current nationally recognized training is NCI.

The JCAHO also implemented elements of performance in 2009 that aligned its standards more closely with the later CMS (2015) regulations. These standards and regulations clarified the use of behavioral and medical restraints to include documentation, policies, and procedures. In addition to these new requirements, the JCAHO specified its elements of performance, which included specific strategies to identify staff and patient behaviors, events, and environmental factors that could trigger circumstances requiring the use of restraints or seclusion. Some of the requirements described were the use of nonphysical intervention skills; methods for choosing the least restrictive interventions based on assessments of patients' medical status, behavioral status, or condition; safe application and use of all types of restraint or seclusion used in the hospital; and training to recognize and respond to signs of physical and psychological distress. These requirements were designed to align with CMS rules.

Harris (1996) indicated that although standards and guidelines and regulations have been set, emergency situations or circumstances might prohibit the ability to follow procedures. The number of regulations and policies regarding the use of restraints continues to expand. In addition, some nursing home facilities have developed policies involving staff training, guardian notification (if applicable), doctor orders, and any processes required after the use of restraint has been issued.

Nursing homes must adhere to federal standards related to physical restraint use. Congress enacted legislation in 1987 requiring nursing homes participating in Medicare and Medicaid to comply with certain rules pertaining to quality of care. This law, known as the Federal Nursing Home Reform Act, states that nursing homes "must provide

services and activities to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident in accordance with a written plan of care" (p. 139). States have developed similar, if not even more stringent, standards to be in alignment with the federal regulations on nursing homes. Federal regulations do not prohibit the use of restraints entirely, but they have helped to ensure strict limits and parameters regarding their use.

Summary

The literature supported research on physical restraint use in nursing homes. The literature has focused on the research of nursing and psychiatric hospitals, underreporting use of restraints, nursing interventions, effective management of residents, informed consent, and federal regulations. This study has tried to fill a gap in the literature and extend knowledge in the discipline by examining the training and education components of health care practitioners. The next chapter presents the research methodology used to determine the correlation between training standards and restraint use.

Chapter 3: Methods

Introduction

The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs. The process was to compare the number of physical restraint use citations and the training standards of health care practitioners. The DHHS (2015) encouraged voluntary compliance with programs that ensure adherence of procedures that follow the regulations of federal health care programs in facilities that include nursing homes. This chapter presents the research design and approach; describes the setting and sample; and explains the data collection, analysis, and protection protocols.

Research Design and Approach

The researcher used a causal-comparative research design to determine whether the training of RNs and CNAs had a direct impact on restraint use through a qualitative review of standards and quantitative review of citations. This research design was chosen because it facilitated an exploration of a possible causative relationship between the Independent Variables (IVs) of federal and state standards for RNs and CNAs and the Dependent Variable (DV) of the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy of residents in nursing homes). Randomization was not possible in this causal-comparative study because of the control of comparing nursing home citations based on CMS standards (Gall et al., 2010).

According to Creswell (2009), research design refers to the procedures to collect, analyze, interpret, and report the data. A causal-comparative research design allowed the researcher to answer the RQs by way of a number of perspectives and test the relationship between the IVs and the DV. There were no anticipated time or resource constraints in the conduct of this study.

Methodology

Population

The target population comprised all nursing home residents identified in the mandated reports required by each state (i.e., Kansas, Louisiana, and Ohio) and collected by the CMS (2015).

Sampling and Sampling Procedures

The CMS (2015) website provides details about every nursing home in the United States. Each nursing home receives a rating of one to five stars (a rating of five stars is excellent; a rating of one star is poor) based on performance in three key quality domains: health inspections, reported staff levels, and quality measures that come from mandated assessments related to the residents' health and well-being. Based on the ratings of the surveys, citations are issued. Substandard Quality of Care (SSQC) deficiencies are the result of some form of abuse based on three components: restraint use; Citation H, actual harm that is not immediate jeopardy; and Citation K, immediate jeopardy to residents' health or safety. The percentages are calculated by the ratings submitted each month by Hadden and Abt Associates, vendors of CMS who process the data that nursing homes are mandated to report. Hadden and Abt Associates created the annual data compendium

published by the CMS in 2013. For the current study, the researcher randomly chose three states to compare these data: Kansas, Louisiana, and Ohio. These states for chosen based on the availability of the online data. The researcher determined the statistical significance of the number of citations based on RQ3. Sample size power analysis allowed the researcher to determine the probability of effect size allowing the researcher to see how much the IVs affected the DV.

Data Collection

The researcher obtained the secondary data from the CMS (2015) on January 16, 2016, after receiving IRB approval (#01-15-16-0104645) on January 15, 2016. The researcher imported the Excel file into SPSS v.21.0, the first step in cleaning the data to conduct the appropriate statistical tests. Next, the researcher assigned labels to the appropriate variables. Last, all missing values were coded and labeled. This study was conducted to review the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) across all certified nursing homes in Kansas, Louisiana, and Ohio. The variables (both independent and dependent) were obtained from the state health agency websites. Federal and state standards for RNs and CNAs served as the IVs. The DV was the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy of residents in nursing homes). The IVs were obtained from the federal and respective state health agencies. The DV was obtained from the 2013 CMS Nursing Home Data Compendium.

Nursing Homes in Kansas, Louisiana, and Ohio

The nursing homes provide the residents with skilled nursing care and other related services, such as medical and/or rehabilitation to residents who might have a disability or who are, injured or sick. Residents in the nursing homes receive care on an ongoing basis from RNs and CNAs because they are physically or mentally incapacitated. RNs typically work 40 or more hours a week and in these facilities, RNs are the designated directors of nursing on a full-time basis. CNAs must be on duty during all shifts, typically working 40 or more hours a week in these facilities.

Percentage Differences in the Number of Citations

Percentage differences in the number of citations regarding actual harm and immediate jeopardy to residents in nursing homes from the CMS (2015) were compared to national and state standards regarding training of RNs and CNAs to explore the correlation with the data of this study. Collecting and analyzing the data helped to explain why the use of restraints was more harmful than useful. The data provided insight into the RQs as well as identified patterns, training requirements, and standards.

Federal and State Standards for RNs and CNAs

Federal and state standards for RNs and CNAs served as the IVs. The DV was the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy of residents in nursing homes). Analysis of data from 2008 to 2012 that were available and collected from the CMS (2013) was conducted using SPSS v.21.0. SPSS is used to manipulate and analyze large amounts of data. Using SPSS v.21.0 allowed the

researcher to test the hypotheses and gain insight into the variables as well as understand the relationship between the IVs and the DV.

Data Analysis Plan

Three components of the CMS (2015) were reviewed: (a) citations from 2008 to 2012 in three key areas: restraint use; Citation H, actual harm that is not immediate jeopardy; and Citation K, immediate jeopardy to residents' health or safety; (b) the percentages of citations across Kansas, Louisiana, and Ohio, and differences between Year 1 (2008) and Year 5 (2012): and (c) standards requirements for the training of RNs and CNAs, across Kansas, Louisiana, and Ohio, including training requirements regarding restraint use. The researcher collected the data from the CMS (2015) for each state website (Kansas, Louisiana, and Ohio).

RQ1: What were reasons for the use of restraints on residents in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012?

RQ2: Were there differences between 2008 and 2012 in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio between 2008 and 2012?

H_{02}: Between 2008 and 2012, there were no significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

H_{a2}: Between 2008 and 2012, there were significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

RQ3: Between 2008 and 2012, was there a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio?

H_{03}: Between 2008 and 2012, there was no relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

H_{a3}: Between 2008 and 2012, there was a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

Secondary analysis of the data collected from the CMS (2015) for 2008 to 2012 was conducted using SPSS v.21.0. SPSS allowed the researcher to test the hypotheses and gain insight into the variables as well as the relationship between the IVs and the DVs.

An analysis of variance (ANOVA) was conducted to examine the differences between the independent variables (IVs) of federal and state standards for RNs and CNAs and the dependent variables (DVs) of the number of citations of restraint use (Citation H, actual harm; Citation K, immediate jeopardy of residents in nursing homes). The researcher performed a bivariate analysis by reviewing the IVs and DVs in relationship to physical restraint use and the training requirements for RNs and CNAs. After reviewing the data, the researcher was able to cross-correlate the number of training hour requirements in relation to the number of citations of restraint use and projecting a relationship between training requirements and citation rates. Table 1 provides details.

Table 1

Operationalization of Variables

Name of variable	Type of variable	Data source	Response to question
Independent Variable (IV)	Federal standards for RNs and CNAs	Federal policy review and analysis	RQ2
Independent Variable (IV)	State standards for RNs and CNAs	State policy review and analysis	RQ2
Dependent Variable (DV)	Number of citations of restraint use (i.e., actual harm)	CMS nursing home data compendium 2013	RQ3
Dependent Variable (DV)	Number of citations of restraint use (i.e., immediate jeopardy of residents in nursing homes)	CMS nursing home data compendium 2013	RQ3

Note. Abbreviations: RN, registered nurse; CMS, Centers for Medicare and Medicaid Services; CNA, certified nursing assistant; RQ, research question.

Threats to Validity

There were several threats to validity in this causal-comparative research. One was the random selection of the three states, and the other was the inability of the researcher to manipulate the IVs. There also was the possibility of participant selection bias. However, those threats were reduced through the use of statistical matching.

Ethical Procedures

The CMS protects the data submitted by nursing homes. To protect the data and the privacy of the nursing home residents and staff participating in the Medicare and Medicaid programs, nursing homes have to meet certain standards that cover a wide range of topics. To protect the privacy of the residents and staff, the researcher uploaded the data but redacted the free text field in the data system. The processing routine each month includes running files and field text through a redacting process using Perl, a

programming language that is used for a large variety of tasks. A typical simple use of Perl is to extract information from a text file and print a report or convert a text file into another form. When the CMS publishes information, it uses Perl as a regular expression to replace sensitive information with generic statements in brackets.

Prior to conducting this study, the researcher received approval from Walden University's Institutional Review Board (IRB approval #01-15-16-0104645). The data were anonymous and are stored on a secured encrypted USB drive. Only the researcher and the committee chair had access to the data, which will be destroyed 5 years after publication of the study.

Summary

This chapter described the methodology, including the research design, sampling procedures, data analysis plan, and ethical procedures taken to protect the residents' data. Chapter 4 describes the results and analysis of the data.

Chapter 4: Results

Introduction

The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs. The target populations were nursing home residents identified by the CMS (2015). The data were collected from the CMS (2013) for 2008 to 2012 and analyzed using SPSS v.21.0. This chapter provides an introduction, explanation of the data collection, the results, and a summary.

The study was guided by three RQs:

RQ1: What were reasons for the use of restraints on residents in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012?

RQ2: Were there differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio between 2008 and 2012?

H_{02}: Between 2008 and 2012, there were no significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

H_{a2}: Between 2008 and 2012, there were significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

RQ3: Between 2008 and 2012, was there a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio?

H_{03}: Between 2008 and 2012, there was no relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

H_{a3}: Between 2008 and 2012, there was a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

A causal-comparative analysis culminated in the descriptive statistical test applied in this study to determine the answers to the RQs and hypotheses.

Results

The post hoc analysis cross-correlated the number of training hour requirements in relation to the number of citations for restraint use, actual harm or immediate jeopardy and immediate jeopardy of residents of harm in nursing home facilities; For RQ1: What were reasons for the use of restraints on residents in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012? According to the CMS (2015), between 2008 and 2012, the number of nursing homes decreased by 0.7%, somewhat slower than the 3.2% decline in the prior 5 years. From 2008 to 2012, dually participating nursing homes continued to become more prevalent as the number of Medicare-only and Medicaid-only nursing homes declined (CMS, 2015).

RQ2: Were there differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio between 2008 and 2012?

H_{02}: Between 2008 and 2012, there were no significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

H_{a2}: Between 2008 and 2012, there were significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio.

Figure 1 shows the number of continuing education (CE) units. Specified refers to the measures used in CE; unspecified refers to the CEU program's annual training types by hours required. For the scopes of practice for RNs and CNAs, the standards of safe practice and nursing delegation are zero in Kansas and Louisiana and two in Ohio. Application of the nursing process and critical thinking, clinical reasoning or nursing judgment related to patient care in Kansas and Louisiana is zero and six in Ohio. Unspecified refers to the scopes of practice for RNs and CNAs; the standards of safe practice and nursing delegation are 30 in Kansas, five in Louisiana, and eight in Ohio.

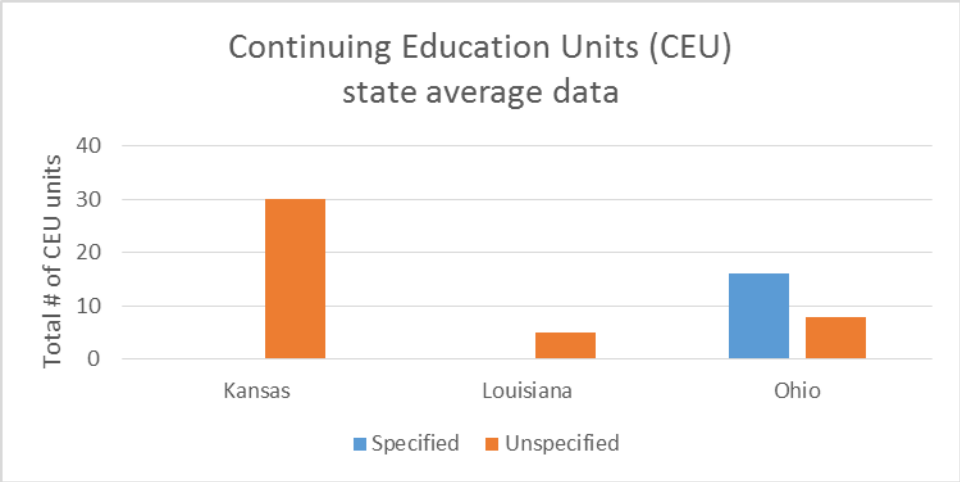

Figure 1. CEU requirements.

Figure 2 shows the number of nursing homes by bed count.

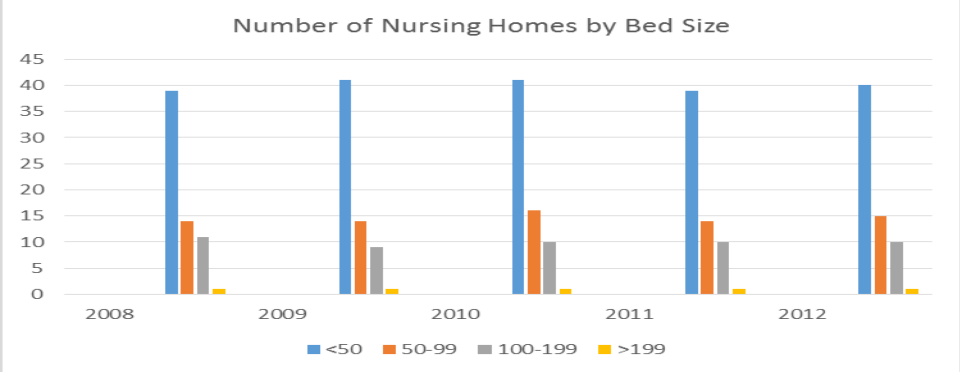

Figure 2. Number of nursing homes by bed count, 2008-2012.

Data analysis was conducted to examine the relationship between the IVs and the DV. A significant difference was found between the number of citations and training based on bed count. Table 2 shows the restraint use citations by facility bed count. ANOVA allowed the researcher to examine differences between the number of RN and CNA training hours and the DV of the number of citations of restraint use (i.e., Citation H, actual harm, or Citation K, immediate jeopardy to residents' health or safety).

ANOVA represented the measure of variation or deviation from the mean. It calculated the squares of the differences from the mean. The calculation of the total sum of squares considered both the sum of squares from the factors and from randomness or error. The assumption was that the data were normally distributed, independent, and equal. The analysis was conducted to examine differences between citations and training based on bed count ($p \leq .01$) Table 2 provides details of the analysis conducted to examine differences between the number of citations and training based on bed count.

Table 2

Restraint Use Citations by Facility Bed Count

Analysis of Variance (ANOVA)						
Bed count		*SS*	*df*	*MS*	*F*	Sig.
Restraint use >50	Between groups	238.532	10	23.853	1.722	.316
	Within groups	55.412	4	13.853		
	Total	293.944	14			
Restraint use 50–99	Between groups	79.872	10	7.987	.843	.626
	Within groups	37.892	4	9.473		
	Total	117.764	14			
Restraint use 100–199	Between groups	181.807	10	18.181	2.455	.201
	Within groups	29.627	4	7.407		
	Total	211.433	14			
Restraint use >199	Between groups	511.329	10	51.133	11.491	.016
	Within groups	17.800	4	4.450		
	Total	529.129	14			
Restraint use all facilities	Between groups	107.131	10	10.713	3.069	.146
	Within groups	13.965	4	3.491		
	Total	121.096	14			

Bed-count policies pay nursing homes to reserve a certain number of beds for acutely hospitalized Medicaid residents; this number varies across states in the proportion of the average daily rate paid for bed count and the number of days covered. Some states also require a minimum facility occupancy rate to allow bed-count payments. The goal of bed counts is to provide a residence for nursing home residents (Wiener & Stevenson,

1998). Facilities with fewer than 50 beds had a mean between-groups score of 23.853 and a mean within-group score of 13.853 (see Table 2). There were decreases in the number of nursing homes with the fewest beds (< 199 beds). For the two intermediate categories (50-99 beds and 100-199 beds), the group with 50 to 99 beds had a mean between-groups score of 7.987 and a mean within-group score of 9.473. The group with 100 to 199 beds had a mean between-groups score of 18.181 and a mean within-group score of 7.407. According to the CMS (2013), these mean scores are applicable to more than 80% of nursing homes in the United States.

The researcher also conducted a policy review analysis to answer RQ2 to identify similarities and differences among Kansas, Louisiana, and Ohio. A review of the standard training requirements for RNs and CNAs included requirements regarding restraint use. There were significant test results for the RQ2. Thus, null hypothesis was rejected, and alternative hypothesis was accepted. H_{a2}: Between 2008 and 2012, there were significant differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio. In the next section, the researcher presents a comprehensive analysis of the findings of the federal and state training requirements for RNs and CNAs by state.

Federal Training Standards Requirements

Federal RN requirements: The facility is required to have one full-time RN who is regularly on duty 40 hours a week. The facility must have sufficient nursing staff to provide nursing and related services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, as determined by resident

assessments and individual plans of care. The facility must provide services by having sufficient numbers of each of the following types of personnel on a 24-hour basis to provide nursing care to all residents in accordance with resident care plans to include licensed nurses; other nursing personnel. The facility must designate a licensed nurse to serve as a charge nurse on each tour of duty.

Federal CNA requirements: Must specify any CNA training and competency evaluation programs that the State approves as meeting the requirements of Joint Commission CFR §483.152 and/or competency evaluations programs that the State approves as meeting the requirements of Joint Commission CFR §483.154 (CMS, 2015).

State Training Standards Requirements

RN requirements in Kansas: RNs also can be approved to test on the basis of licensing that expired in the past 24 months, provided that it expired in good standing (i.e., not revoked or suspended). Examination eligibility is extended only to those with equivalent training. Health care workers can be approved to test on the basis of licensed practical nurse, RN, or licensed mental health technician in any U.S. state. RNs are required to complete 30 contact hours every 2 years. There is no maximum on the number of independent study hours that can be obtained.

CNA requirements in Kansas: The minimum core curriculum content for CNAs is 90 hours. It is divided into two parts. At least half the training in each part of the program will consist of clinical instruction that can take place in a simulated laboratory in a school setting, an adult care home, or in a hospital on an LTC unit. Programs follow a state curriculum. Students need to perform specific skills for evaluation by RNs. Trainees

who have successfully completed the first part of the program may be designated NA Trainee II. A total of 50 hours of CE is required for renewal: 10 hours minimum in resident care, 30 hours minimum in administration, and 10 hours elective.

RN requirements in Louisiana: Staff who provides nursing and nursing assistant care to residents are required to obtain at least 8 hours of dementia-specific training within 90 days of employment and 5 hours of dementia-specific training annually. The annual CE requirement is based on employment: Five contact hours (full-time nursing practice), 10 contact hours (part-time nursing practice), or 15 contact hours (not employed or worked less than 160 hours).

CNA requirements in Louisiana: Each CNA training program shall provide all trainees with a nursing facility orientation that is not included in the required 80 hours of core curriculum (40 hours classroom and 40 hours clinical). The orientation program shall be included in the required 80 hours of core curriculum. The orientation program shall include, but is not limited to, an explanation of the facility's organizational structure, the facility's policies and procedures, a discussion of the facility's philosophy of care, a description of the resident population, and employee rules.

RN requirements in Ohio: RN relicensure requirement is 24 contact hours every 2 years. At least 1 contact hour must be related to Chapter 4723, 1-23, of the Ohio nurse practice code and rules. Nurses who have been licensed by endorsement in Ohio for more than 1 year must complete 24 contact hours of CE. Nurses who have been licensed by endorsement in Ohio for 1 year or less must complete 12 contact hours of CE; 2 contact hours of Category A, with learning outcomes that address scopes of practice for RNs and

licensed practical nurses, standards of safe practice, and nursing delegation; six contact hours with learning outcomes that address application of the nursing process and critical thinking, clinical reasoning, or nursing judgment related to patient care; 6 contact hours in pharmacology, with learning outcomes that include drug classifications, medication errors, and patient safety; 2 contact hours that include learning outcomes related to clinical or organizational ethical principles in health care; and 8 contact hours that include learning outcomes related to an area relevant to the nurse's practice. Each nursing home shall employ an RN who shall serve as director of nursing. This requirement may be met by two RNs who share the position as codirectors of nursing. The director or the codirectors of nursing shall be on duty 5 days per week, 8 hours per day predominantly between the hours of six a.m. and six p.m. to direct the provision of nursing services. The name or names of the director or codirectors of nursing shall be posted in a place easily accessible to residents, their families or sponsors, and staff.

CNA requirements in Ohio: Nurse Aide Training Competency Evaluation Program (NATCEP) training will consist of at least 59 hours of classroom experience and skills training and at least 16 hours of supervised resident care in LTCFs (nursing homes only). The director also shall adopt rules governing all of the following: procedures to determine individuals' competency to perform services as CNAs, curriculum training and competency evaluation programs, clinical supervision and physical facilities used for competency evaluation programs and training and competency evaluation programs, and standards for successful completion of competency and evaluation programs or training and competency evaluation programs. Chapter 3701-18 of the Ohio Administrative Code

(OAC) for the State of Ohio establishes the requirements for Ohio's Nurse Aide Training Competency Evaluation Program (NATCEP).

These requirements mandate that as of Jan. 1, 1990, all Nurse Aide (NAs) working on a regular basis in Ohio's Long Term Care Facilities (LTCFs) must complete a 75-hour Training and Competency Evaluation Program (TCEP) and pass a competency evaluation test conducted by facility directors. The objective of this NA training and competency evaluation requirement is the provision of quality services to residents in LTCFs by NAs, who must be able to form relationships, communicate and interact competently on a one-to-one basis with LTCF residents as part of the team implementing resident care objectives; demonstrate sensitivity to residents' physical, emotional, social and mental health needs through trained, directed interactions; assist residents in attaining and maintaining functional independence; exhibit behavior in support and promotion of residents' rights; and demonstrate observation and documentation skills needed in support of the assessment of Long Term Care (LTC) residents' health, physical condition and well-being.

Category A contact hour is directly related to the Ohio Nurse Practice Act and the rules of the Ohio Board of Nursing (OBN). To qualify as Category A, the Continuing Education (CE) must be approved by an OBN approver or offered by an OBN-approved provider unit headquartered in Ohio. A certified Community Health Worker (CHW) must complete 15 contact hours of CE to renew a certificate. At least 1 contact hour must be directly related to establishing and maintaining professional boundaries, and 1 contact hour must be Category A.

RQ1 and RQ2 explored differences in policies related to restraint use in nursing homes in Kansas, Louisiana, and Ohio. There were significant test results for the RQ2, $p \leq .01$, which represented the training requirements of RNs and CNAs. Thus, null hypothesis was rejected, and alternative hypothesis was accepted.

For RQ3: Between 2008 and 2012, was there a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio?

H_{03}: Between 2008 and 2012, there was no relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

H_{a3}: Between 2008 and 2012, there was a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio.

The data for 2008 to 2012 showed a significant difference in the number of restraint use citations (Citation H, Citation K) among nursing homes in Kansas, Louisiana, and Ohio. For the same years, 14 other states had an increase in the number of nursing homes, and there has been no net change in an additional eight states. The largest increases were in Arizona (9.0%) and South Carolina (8.0%); the biggest declines were in Montana (8.8%), Vermont (5.0%), and Connecticut (4.9%). Although the number of nursing homes has been declining, occupancy rates also have been declining.

Table 3 shows that the number of restraint use incidents across nursing homes in Kansas, Louisiana, and Ohio from 2008 to 2012 remained relatively constant. The years

that had some deviation (i.e., a decrease) for all of three states were in 2010 and in 2012. According to the CMS (2015), the decrease in the number of residents contributed to a 7.1% decline in the number of nonprofit nursing homes between 2008 and 2012. The percentage of for-profit nursing homes remained at 69% of all nursing homes (and 71% of nursing home beds), resulting in an increase of 1.9% over the same period.

Table 3

Restraint Use by State, 2008-2012

State	*M* restraint use across all facilities				
	2008	2009	2010	2011	2012
Kansas	9.8	10.6	7.7	9.7	5.7
Louisiana	9.4	9.2	4.7	2.8	6.0
Ohio	12.0	11.5	9.5	5.7	3.3

There were significant test results for RQ3 $p \leq .02$. The researcher found and identified the specific delineation and variations of expectations by state. Each standard varied by state. Thus, null hypothesis was rejected, and alternative hypothesis was accepted.

Summary

The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs. The researcher hypothesized that there would be a higher rate of restraint use citations in states with few to no standards regarding their use by health care practitioners. The results indicated that between 2008 and 2012, there were significant

differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use and there was a relationship between the training of staff and the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety) in Kansas, Louisiana, and Ohio. The final chapter provides a summary of the study purpose, methodology, key findings, and limitations. It also offers recommendations for further research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

State and federal law and regulation prohibit the use of restraints on nursing home residents unless the residents' medical conditions require the use of restraints (CMS, 2015). Restraint use for the convenience of staff or the discipline of residents is a violation of law and regulations. Nursing homes are required to use the least restrictive alternatives to restraints and plan how best to reduce the amount of time that residents are restrained (DHHS, 2015). The purpose of this causal-comparative quantitative study was to determine the correlation between training standards and the use of restraints by RNs and CNAs working in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012 and then compare the number of physical restraint citations and the training standards of RNs and CNAs.

Interpretation of the Findings

The key findings of this study might be useful in providing information to health care coalitions and policymakers. RQ1 examined the reasons for the use of restraints on residents in nursing homes in Kansas, Louisiana, and Ohio between 2008 and 2012. Restraints were mainly imposed to ensure residents' safety, quality of care, and quality of life.

RQ2 examined differences in policy and standards requirements for the training of RNs and CNAs regarding restraint use in Kansas, Louisiana, and Ohio between 2008 and 2012. The results identified significant differences in the number of restraint use citations (Citation H, Citation K) in each of the three states studied.

RQ3 examined the relationship between the training of staff and the number of citations of restraint use (Citation H, Citation K) in Kansas, Louisiana, and Ohio. The results showed significant differences in the number of citations of restraint use (Citation H, Citation K) in Kansas, Louisiana, and Ohio. The findings could extend the current body of knowledge about the use of physical restraints in nursing homes. The training standards, competency evaluation programs, and classroom hours required for RNs and CNAs varied in the three states. This finding further supports the variations in knowledge and skill levels regarding the use of physical restraints in nursing homes.

Upon reviewing the literature and comparing past results with the results of this study, the researcher found that in the literature, federal standards require that restraints be used only to ensure the physical safety of patients or others; in addition, they are subject to written orders from physicians or another licensed practitioner permitted by the facility and state law (CMS, 2015). The residents of nursing homes are at particular risk of injury because they cannot care for themselves and depend solely on health care practitioners to assist them. Restraints are the least restrictive approach to ensure the health and safety of residents, and they are based on the policies and protocols of the nursing homes in question (CMS, 2015).

The results identified different policies and standards requirements across Kansas, Louisiana, and Ohio. The theoretical framework of this study further supported the findings. Rogers's (1959) PCT focuses on care that requires a sustained commitment from clinical teams, including RNs and CNAs that ranges from ongoing training to education to organization. The researcher identified key areas of improvement, such as

the standardization of training requirements and education requirements further influencing changes to federal and state policies and creating a standard level of expectations regarding physical restraint use.

Limitations of the Study

This study was limited by the use of secondary data from the CMS (2015). The secondary data provided the researcher with a vast amount of information to answer the three RQs.

Internal Validity

The primary internal validity of this research was based on the IVs and the DV. In this study, internal validity referred to the use of archival data, randomization of the selected states, and the inability of the researcher to manipulate the IVs of federal and state standards for RNs and CNAs. There was selection bias, but in an effort to reduce that bias, the researcher used statistical matching. Therefore, the researcher reviewed the federal training standards as well as the state standards (Kansas, Louisiana, and Ohio) for RNs and CNAs.

External Validity

The researcher was able to identify key areas of improvement within the three states researched, primarily through education and then through the development of standardized training requirements that could contribute to social change, and finally by creating an avenue to begin conversations at a national level to develop and implement policy changes across all states.

Recommendations

The researcher proposes new policies and regulations that include a requirement for national training standards for all health care practitioners working in nursing homes. It is important to promote person-centered care as well as improve current clinical standards, principles, and practices. Therefore, the researcher proposes key areas that might influence the job specifications of RNs and CNAs working in nursing homes. Some of the proposed training areas could be in how to care for residents with dementia, how to prevent resident abuse, hospice care, medication administration, infection control, accident prevention, and safety control.

CNAs would be required to have a minimum of 90 core curriculum training hours. At least half of the hours would be through clinical instruction, and the other half of the training hours would be in LTCFs. The RNs would be required to abide by the federal standards of nursing licensure. One recommendation for future research would be to determine whether a lack of required staffing contributes to the use of physical restraints.

Recommendations for future training, future evaluations, future training materials, and future communications include the following:

1. Develop a communication strategy.
2. Develop a standardized training protocol.
3. Develop CE.
4. Once the training protocol is implemented, follow up with all nursing homes to track and evaluate the progress of the training.

Implications for Social Change

Knowledge and training of physical restraint use might lead to innovative interventions to reduce their use and identify inappropriate reasons for restraining residents. Health care practitioners might then become more aware of the development of behavioral change models that are culturally tailored to account for historical and traditional social norms.

Social change can influence and impact behaviors in the health care practitioner community. To change behaviors and attitudes toward the inappropriate use of physical restraint use and perhaps even decrease restraint us requires training that ultimately will improve the quality of life of the residents in the nursing homes. Understanding the importance of patient-centered care also might have a positive impact on the personal relationships that residents form with the nurses responsible for their care. For patients, and their families, the relationships forged with nurses and other caregivers are central to the quality of their health care experience. The quality of these relationships could be identified in patient satisfaction surveys as being of particular importance.

A person-centered approach focuses on the residents' personal needs, wants, desires, and goals so that they become central to their care and the nursing process. The results of this study could influence the quantity of staff, individualized approaches to care, and engagement of residents and/or representatives in decision making. This could mean putting the person's needs, as they define them, above those identified as priorities by health care professionals. Future research in this area could identify some of the

training needs of nurses and identify ways to standardize training for health care practitioners.

Conclusions

Results indicated that restraint use, the number of citations, and standardized training requirements for RNs and CNAs were the three interrelated focal areas of this study. Following are brief descriptions of each:

1. **Restraint use**: The CMS (2015) evaluated efforts to reduce the use of physical restraints after enactment of the 1987 Nursing Home Reform Act in 1987. The law crystallized a growing consensus against the use of restraints throughout all sectors of nursing home service delivery and eventually led to a complete change in how restraint use was viewed.
2. **Number of citations**: This information was based on the secondary data from the CMS (2015) relevant to the number of citations of restraint use (i.e., Citation H, actual harm; Citation K, immediate jeopardy to residents' health or safety).
3. **Training requirements**: There has been widespread agreement that training and technical assistance in physical restraint use are priority needs. Section 6102 of the ACA mandated that nursing homes comply with guidelines and provide oversight of high-level personnel with sufficient resources and authority and have effective and practical training and education opportunities.

Standardized training for RNs and CNAs is necessary. Standardization refers to the implementation and development of formal procedures and practices. This research could impact social change by empowering health care practitioners to address the use of physical restraints through training and education.

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