Purpose: This study examines the variations and complexities in nurses’ decision making about the initiation, maintenance, and termination of physical restraints. Methods: This qualitative research used a semistructured interview of registered nurses on medical-surgical units at a midsize hospital in the Midwest. Results: All the nurse respondents easily recalled caring for a patient in restraints and detailed in their accounts a complex trajectory of care that centered on safety. However, most nurses reported that the trajectory of restraint use was started by other departments, shifts, or nurses. The findings revealed a forceful interplay of patient, nurse, family, healthcare worker, and organizational factors that influence nurses’ decision making about restraint use. Conclusions: This article discusses how a deeper understanding of the intricacies of the decision-making processes related to restraints can help clinical nurse specialists tailor education, impact policy, and serve as role models to reduce the use of restraints in hospitals.

KEY WORDS: clinical nurse specialist, physical restraint, qualitative, safety work

The use of physical restraints continues to be a practice issue in healthcare settings. Although professional guidelines, directives, and researchers over the last 20 years have called for the discontinuance of the use of restraints, nurses continue to use them. In an online survey completed in November and December of 2002, 73% (n = 1,400) of the nurse respondents said that they used restraints on patients in the year of the study. The use of physical restraints in hospitals continues to be a major practice problem. As clinical experts and clinical policy and education leaders, clinical nurse specialists (CNSs) are often asked to examine the issue of restraint use for a variety of reasons, for example, compliance purposes, cost questions, educational and orientation programs, and risk management.

This article presents the findings from a qualitative study that was initiated by a CNS who had been asked to examine restraint use within the hospital where she was...
employed. The purpose of the study was to explore how registered nurses make decisions about initiating, maintaining, or discontinuing restraints for hospitalized patients on general medical-surgical units.

BACKGROUND

Research on restraint use started receiving attention in the late 1980s with the seminal works by Evans and Strumpf and Strumpf and Evans and with the introduction of restraint use regulations in the Omnibus Budget Reconciliation Act of 1987. Thus, a growing body of literature that examines the use of restraints in acute and long-term care in the United States and a number of other countries has developed over the last several decades. Published research has focused on defining restraint use and its prevalence, nurse perceptions and attitudes toward using physical restraints, and programs to decrease or eliminate restraint use. A review of nursing literature shows a host of influences on restraint use, including patient demographics and behaviors; organizational and environmental characteristics; and nurses’ values, beliefs, education, and perceptions.  

Recent work by Minnick et al examined the observed and reported occurrence of restraints at specified data collection times in 40 acute care hospitals in the United States. They estimate that a minimum of 27,000 people are tied in restraints everyday. They report variations by unit; more than 50% of restraint use occurred in intensive care units. The researchers found that wrist restraints were the most common type used, and nurses gave the following 3 rationale: “prevent therapy disruption,” “confusion,” and “fall prevention.”

There are aspects of restraint use that have not been fully explored. The use of restraints is often examined dichotomously as being on or off. Therefore, studies do not often capture the thinking process of the nurse nor the complexity of the process. Although work on the reasons why nurses initiate and remove restraints has been done, no published works that explored the processes of restraint use, specifically initiating, maintaining, and terminating restraints, were found.

METHODS

Grounded theory methodology guided this study. This method is used to discover inductively the intricacies, patterns, and variations in social processes. The method is used as a general approach for developing new theory. It is also a method used to elaborate on grounded theories that have been previously generated.

Procedures

This study was approved by the human subjects review board at both the hospital where the study was conducted and the university where one CNS was employed. In addition, the nursing research committee at the hospital approved the project for funding. Each nurse who agreed to participate was paid a $30 stipend. The face-to-face interviews were conducted over a 2-week period in the summer of 2003. Interviews were conducted before or after nursing shifts began, in a private room that was easily accessible to the nurses.

Three investigators (2 CNSs and a sociologist) independently conducted the semistructured interviews. This collaborative team approach was chosen to bring the sociological and nursing perspectives together in a way that had not been used for looking at restraints. This cross-disciplinary approach has been used to look at other health problems such as chronic illness, pain, and child abuse.

The interview guide included 9 semistructured questions that asked nurses to recall and describe the patients in restraints for whom they had cared. First, each interviewee was asked to recall the last patient on whom he or she had initiated restraints. Each interviewer asked probing questions about the patient and the situation, for example, “Tell us what happened that led you to initiate the restraints?” and “What factors were important to you in making your decision?” Parallel questions about maintaining and terminating restraints were asked. The interviews lasted 45 minutes to 1 hour.

To ensure scientific rigor during this phase, the 3 interviewers jointly and individually interviewed nurses. They compared notes after the interviews to get a general sense of the interviews and begin exploring the data. Once the interviewers determined that no new information was being revealed by the participants, the interviews were stopped.

Sample

The participants were selected from a list of full-time nurses provided by the unit directors. From that pool, the CNS investigator based at the hospital purposively chose nurses who represented differing shifts, ages, and years of experience. Nurses were chosen from one of the 3 medical-surgical units. None of the nurses chosen refused to participate. The sample included 7 female nurses working in a large, urban, Midwest hospital; they represented all shifts, with each one working either 8 or 12 hours. The medical-surgical experience of the participants ranged from 2 to 31 years (mean, 15.5 years), and the participants ranged in age from 32 to 51 years (mean, 41.2 years).

Analysis

The interviews were audiotaped, transcribed, and analyzed using the general procedures for analysis recommended by Glaser and Strauss. Independent, open, line-by-line coding was done once the data had been cleaned. Nouns, verbs, and adjectives that captured what the nurses told us in the interviews were coded. The team met regularly to verify and review the coding for similarities and differences, review memos that were written while coding, and come to a mutual understanding of the process. This process helped maintain rigor. Analysis continued independently and then moved to joint axial coding. In axial coding, connections were made between concepts identified in open coding. For example, the team began to see the connections between patient danger and injury and the nurses’ repeated concerns and actions regarding patient safety. It was noted that Strauss et al had used the concept safety work to refer to this phenomenon, and we decided to borrow that concept...
because of its fit with the data. Similarly, it was noted how their concept of trajectory could be used to understand the evolving problems and developments that the nurses described as they attempted to care for their patients. Thus, the core concepts in the final or selective coding were safety work and trajectory. As Strauss and Corbin note, the use of previous theory must be “grounded” through its continual interaction with observations from the field.

RESULTS

In discussing their decisions regarding the use of restraints and alternative procedures, the nurses returned repeatedly to the safety of patients. These concerns and the actions taken by the nurses fit easily under the concept of safety work as researched by Strauss et al. The nurses described their actions regarding initiating, maintaining, and terminating restraints as influenced by interactions with patients, family members, and physicians. They noted the influence of the hospital setting in this process. The usefulness of interpreting this process as an aspect of the trajectory of treatment, the major explanatory concept of the social organization of medical work, was discovered in coding these data. Using this theory, the influence of the nurses, family, and organizations on the restraint trajectory began to be conceptualized. The richness of the data that describe the dangers to patients and how nurses work to keep patients safe is presented first. Then, the details of how nurses use restraints and the factors that influence nurses’ use of restraints are provided.

Patient Dangers and Safety Work

All participants easily recalled caring for a patient in restraints during the few weeks before the interviews. It was clear from the responses that patient safety was a core variable. Nurses repeatedly expressed concerns for patient safety, mentioning the need to protect patients from falling or interfering with medical therapy by removing attached equipment, such as an IV line or urinary catheter. Concern for safety took precedence over their voiced knowledge that restraints could and often did increase agitation and confusion. When asked why restraints were initiated or maintained, each nurse referred to safety concerns.

They might fall and hurt themselves.

Safety is the biggest thing.

We were afraid that she would get out of bed and we didn’t want her to fall.

I will keep them on until I am sure that they won’t hurt themselves.

. . . I kept the vest restraint on through the night because I was leery as if they did wake up and they were confused as ER said they were I didn’t want them to fall.

. . . so it was more of a precaution because he sometimes got up and forgot and wandered and was unsteady, so it was for his protection so he didn’t fall.

These repeated examples about safety sent us to the work of Strauss et al. as noted above. They used grounded theory to look at the social organization of medical work in acute care hospitals. The key concept in this framework is trajectory, which refers “. . . not only to the physiological unfolding of a patient’s disease but to the total organization of work done over that course, plus the impact on those involved with that work and its organization.”

Managing a trajectory may be routine or complex, depending on the factors associated with the illness, treatment, and actors. Aspects such as frailty, multiple diseases, equipment use, family presence, staff turnover or shortages, and organizational change can all contribute to a changing trajectory. Thus, the nature of chronic illness and the environment in which it occurs interact to create risks and dangers to patients and imply a multifaceted complexity that goes beyond a simple process. The following statements from one nurse exemplify how the medical condition and being in the hospital impact the overall illness trajectory. She stated,

Because he was very frail in that he was very thin. All that I could think of was osteoporosis and a broken bone. Quite frankly, that was a big part—safety. Whereas, had he been in a different environment, it would not have played such a big part. The fact that we are responsible to keep him safe, keep him intact, kind of do what you have to do to do that.

Another nurse talked about a patient who needed restraints because,

He had had a CVA, he was in with a diagnosis of mental status changes, he was weak on one side from his CVA, he just had poor judgment.

Another aspect of safety involved therapeutic treatments. Nurses often stated that they tried to keep patients from interfering with therapeutic interventions, such as IVs, nasogastric tubes, catheters, and dressings. Either the treatment was necessary to the patient’s safety or removing it might cause harm—such as bleeding if an IV were disconnected. The treatment process thus potentially impacts the safety trajectory. Changes in therapy were cited as reasons for initiating, maintaining, and terminating restraints.

To protect the patient and the treatment, nurses used alternative procedures, such as wrapping the IV, discussing the situation thoroughly with the patient, distracting the patient from the procedure by having him or her perform simple tasks, taking the patient on visits to other patients, or arranging the bedding so the patient could not reach the catheter. The use of alternatives and restraints required careful observation, evaluation, and monitoring of the patient. The intricacy of this process is illustrated in the following description:

We paid enough attention to him that when he had all of his things that he needed while he was sitting in the chair the only thing that it did was that when he stood up it reminded him to sit back down. He could still move, had full range of movement in his arms, had his TV controller, had his water, had his urinal, and everything he needed.

The final aspect of safety was controlling harmful behavior. Nurses described using restraints to control aggressive and disruptive behavior.
A nurse who was very hesitant to use restraints and provided many examples of various alternatives stated:

If they are going through DTs, there is sometimes just no option. They don’t have any idea, and you can’t reason with them any more. . . . So I guess I feel less bad about restraining those people because ultimately they don’t want to get hurt as much as I don’t want them to get hurt. So if they are swinging at me, I don’t want them to hit me, I don’t want them to kick me.

The nurses also attempted to use alternatives for this type of problem, testing them as part of the process of terminating a restraint:

Interviewer: What happens if the combativeness or the confusion continues for a long period of time?

Nurse: Then, you have to deal with other alternatives. Generally, we talk to the physician about do they really need this IV, do they really need this Foley?

Nurse: Because in restraining you are taking away their liberties for a long period of time. Then you start thinking do you really need this stuff? . . . But do I really need to keep this person tied for days at a time?

The Restraint Trajectory

The process of restraint use revealed an ever-changing trajectory involving safety that did not always have a clear starting point. Although the nature of restraint use was evident in the nurses’ discussions, most nurses did not readily recall initiating restraints. All nurses reported that the patients they had worked with most recently had been restrained initially on a previous shift or in another department. Thus, each nurse’s first decision while observing the patient was whether to maintain the restraint, use a less restrictive device, or terminate the restraint.

Nurses who had strong feelings about restraints or who did not believe that restraints were warranted for the patient would terminate the restraint and attempt alternative measures, carefully monitoring the patient’s behavior.

Nurse: She was in a Posey and wrist.

Interviewer: And the reason or your interpretation of the reason for restraint.

Nurse: Their reason was that she got up three times in a short amount of time so they called the doctor and got her wrist restrained and posied.

Interviewer: You terminated them because. . .

Nurse: She didn’t need her hands tied down. She needed to be reminded to stay where she was sitting or laying.

Interviewer: Did she have attached equipment?

Nurse: She had an IV.

Interviewer: Did you keep the IV in her?

Nurse: Yes.

Interviewer: Did you do anything to hide the IV?

Nurse: We wrapped it and curled it.

Nurse: Actually, by the end of Friday, I don’t think I had her restrained at all.

The process varied, even for one patient. Restraints were adjusted (tightened and loosened), temporarily removed, and lessened (in type, time, or number) in this ongoing process. These variations sometimes occurred to test whether the patient could be removed from restraints. Several nurses indicated that they reduced the severity of restraints in increments. Most often, this reduction involved removing one type of restraint but maintaining another.

I took off the wrist restraints but I kept on the Posey because I was still afraid he might fall.

I took off the vest and moved her to a Geri chair near the nurses’ station.

I took off the wrist restraints and he fell asleep. I left on the vest because I didn’t trust him to stay in bed.

On the other hand, nurses might make the restraint more effective by tightening it and/or adjusting the bed.

Just a little bit tighter . . . and just put the bed back a little bit and she was ill enough that she really couldn’t pull herself up.

Sometimes I may need to put the bed back a little and make the restraint just a little bit tighter so she couldn’t reach the tube.

Nurses also had different ideas about restraints based on the limitations they imposed or how they might appear to the patient.

I see something that is out of the ordinary as far as reminding a patient that they can’t pull something out or get up without assistance. In other words, I don’t consider a Geri chair a restraint.

They considered the vest restraint to be the least restrictive and wrist restraints and hand mitts to be the most restrictive. Some referred to the vest as a “reminder” rather than a restraint. They did not view a Geri chair as being a restraint, although they understood that hospital and regulatory agencies consider it to be one.

The restraint process also varies across time. Nurses reported patients being in restraints briefly, for whole shifts/days, or just for procedures. For example, one nurse commented about using a Posey restraint:

. . . it’s not like I had to leave it on 24 hours a day.

Influences on the Trajectory

As noted earlier, a trajectory is a highly complex course that involves many possible actors and organizational influences. The influences of nurses, organizations, and families are described more fully in the following paragraphs.

NURSE INFLUENCES

Nurse characteristics, such as experience, knowledge about the patient, and perceived beliefs, were found to impact the use of restraints. The following examples illustrate the influence of these characteristics on the decision-making process.
... being a new nurse their first concern is to keep the patient safe and they probably think of using the restraint first.

I have had some good experiences, we have a lot of new nurses and I have been able to teach them a lot because of my background, their initial thing is to put a restraint on...

Knowledge of the patient also made a difference. It is noteworthy that nurses stated that familiarity with the patient was rare. Despite the fact that the patients might have been in the hospital for several days, 12-hour shifts make it unlikely that the patient would have the same nurse on 2 consecutive days.

In our environment today, because of 12 hour shifts, there is the lack of continuity of care so you don’t really know that person and how they were.

One nurse suggested that having the family bring in a picture was a way to help a nurse become familiar with a patient:

... one of the most helpful things is when a family brings in a picture of the patient and sets it up on a stand or something and you can see how they were before they got into this state. That is very helpful.

ORGANIZATIONAL INFLUENCES

These influences include factors such as policy, staffing, hospital traditions, and availability of resources and thus relate to the structural and cultural aspects of care. When asked about terminating restraints, one nurse indicated that restraints often remain on because it’s there and either nobody wants to make the decision or take the time to take them off and a part of it is because of policy...

Another nurse also talks about policy,

Our documentation system and our policy procedures... doesn’t really give rewards, in fact, it penalizes you.

Another said,

Sometimes I think we hesitate in taking them off, because when you take them off the doctors order is not good... sometimes it is just easier to leave them on.

And another stated,

Actually I think that the majority of the time once they are initiated they continue until discharge.

Nurses indicated that nursing homes had better resources for caring for confused patients.

We recently heard that some nursing homes are using these padded hip panties, and we talked about them at a conference recently.

... they (nursing homes) use low beds so that if a patient falls out they don’t fall far.

One of the nurses who had worked in a nursing home indicated that she used some of the distraction techniques she learned there:

... I’ve had people fold washcloths... I’ve taken patients with me on rounds... I have them sort pieces of paper.

The most surprising aspect of the organizational influence was the “other.” Nurses reported that “other nurses,” “other shifts,” “other departments,” and “other healthcare workers” were responsible for initiating restraints. Common examples include the following:

I work day shift so when I come on, they are already in restraints. They were started somewhere—nights, days before, evening.

When night nurses were asked about shift differences, they responded,

I don’t know. Usually the people I have in restraints, I’ve inherited them, a lot of times they come from the units or ER.

I usually walk into a situation where the patient is already in restraints.

The guy came in with the wrist and a Posey restraint.

Even one of the nurses who recalled restraining a patient prefaced her recollection of initiation with the following statement:

 Normally, restraint usually takes place at night, when I come in the morning the restraint has already taken place.

FAMILY INFLUENCE

Lastly, the family or patients’ significant others had an impact on the safety trajectory. Like nurses, families were reported to be concerned with safety and identified restraints as a way to keep a patient safe.

The family insisted that the vest restraint be used so he would not get out of bed and fall.

Although safety was noted as an issue in some cases, the nurses also mentioned the attitude of the family. Nurses said that the family could have both positive and negative impacts on the safety trajectory. The negative role of family can be seen in the following examples, in which the family was seen as “overbearing” and, in another case, “upset.”

An elderly presently confused man with an extremely overbearing family that was a little bit inappropriate in their whole view of how we were supposed to be taking care of him so it was more of a precaution because he sometimes got up and forgot and wandered and was unsteady so it was for his protection so he didn’t fall.

... the patient came up from ER with a Posey. The family was there when we put the Posey on. Then the family left to somewhere and he still wanted to get up and I had a student... and she walked him all around and walked with him and let him wander. He then thought he was better and he should go home now. They put him back to bed. We tried the bed alarm and the alarm didn’t work. Well, then he got up and I said let’s just leave the Posey off... and the family came in and saw it was off and it upset them so it was more the family issue. Don’t know what happened after I left.

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The family also impacted the trajectory when they were asked to sit with a patient. One nurse raised questions about the process.

Well, they want us to call the family and have the family come and sit with them. But in my experience, that is not
always the best thing because sometimes, family can’t look at that patient and say oh they are confused. We are very objective about the whole thing and they are saying, Oh My God, Mom lost her mind. They don’t understand so they try to continuously reorient them which I think ultimately agitates them more.

**DISCUSSION AND IMPLICATIONS**

This study explored the factors that influence nurses’ decisions to initiate, maintain, or terminate restraint use. First, we discuss the implications of the research for knowledge development. This study demonstrated the utility of using the social organization of medical work to guide the study of restraint use. We have used grounded theory to extend the work by Strauss et al on the social organization of medical work. Previous published literature on safety work focused on issues such as staffing, procedural and medication errors, and machine hazards. We have coined the term restraint trajectory to capture the work and processes that are involved in initiating, maintaining, and terminating restraints. Thus, this study informs and extends the social organization of medical work to a new empirical problem, the use of restraints.

Second, the results are rich in implications for hospital-based CNSs, both for conducting further research and examining current restraint practices within hospital medical-surgical units. The results in this study and in previous work show how nurses’ knowledge, attitudes, and experience impact their decisions about restraints. Symbolic interaction theory, which frames the grounded theory approach, explains that people are influenced by personal relations and subjective understanding. Thus, CNSs can help nurses explore and reshape the meanings of work related to restraints through education, for example, staff development, bedside teaching, team meetings, or walking rounds on all patients who are restrained.

Education should not solely include information about beliefs and myths; it should also explore nurses’ beliefs and values related to the use of restraints. Targeted education is suggested. Selecting nurses and other healthcare providers for education based on experience with and use of restraints should be considered. Orientation materials that are specific to restraint issues on certain different shifts might be considered. Education might be different for the nurse who comes from a nursing home that has a restraint-free policy. Techniques used in tracking and teaching about medication errors can be used to determine whether there are patterns particular to specific departments, units, shifts, and persons.

A number of nurses indicated that nursing homes had better resources and alternatives for restraint use. This finding is supported by the work done by Bryant and Fernald. Clinical nurse specialists could arrange for expert nursing home nurses to conduct in-service training on alternatives to restraints.

Our results are consistent with work cited earlier in this paper and research done by Hantikainen and Kappeli and Karlsson et al that nurses often respond to patient behaviors with restraints, especially behaviors that are deemed as important to patient safety. It is, however, important to have and use evidence-based agreement on what behaviors are truly indicative of probable harm, as well as the potential severity of the harm. For example, we have made progress in reducing restraint use to maintain IVs by examining whether an IV was necessary. Clinical nurse specialists can serve as a resource to staff. They can help evaluate patient behaviors and guide staff in deciding whether restraint use is warranted. For example, one of the CNS authors observed a nurse attempting to obtain a blood sample from an uncooperative patient. In her eagerness to obtain the sample and comply with the physician’s order, the nurse was about to apply restraints. The CNS asked to intervene, more fully evaluated the patient, and found that the patient was severely hard of hearing. An audiology consult was ordered and amplifiers were obtained—making the use of restraints unnecessary.

As noted in the study by Strauss et al, the organization itself may contribute to safety issues. Policies that are in place to protect the patient from excessive restraint use may at the same time hamper nurses’ decisions to remove restraints. Thus, another initiative would be for CNSs to reexamine policy and procedure guidelines on restraint use. Clinical nurse specialists may also need to review existing policies with staff to ensure that they are clearly written and interpreted as intended. As noted by Minnick et al if there are variations within units, these policies may need to be at the unit level, which is where the CNS often has the most influence.

Nurses repeatedly stated that restraints were initiated by other providers, departments, and shifts. Clinical nurse specialists can help guide policy about how to reevaluate the appropriateness of restraints, for example, when a patient arrives in restraints or is in restraints at the start of the nurse’s shift. Any restrained patient who is new to a nurse should be evaluated for the type of restraint being used, the appropriateness of continuing restraints, and, more importantly, for actively discontinuing use. Clinical nurse specialists might consider rounding to evaluate all newly admitted/transferred patients who are restrained.

As emphasis on outcomes and patient safety continues to grow, decreasing restraint use is one area in which CNSs can make a difference in outcomes at the patient, unit, and hospital/system level. Serving as a resource and an educator, CNSs can assist nurses to evaluate the necessity for restraints, explore the etiology of their use, and identify possible alternatives. The CNS can function as a leader in influencing policies and in monitoring and documenting the outcomes of policy and procedures related to restraint use. Clinical nurse specialists may also develop research projects to implement alternatives to restraints, examine specific unit prevalence and incidence patterns, or incorporate the latest research findings into practice. These projects will promote evidence-based practice.

**LIMITATIONS AND FUTURE DIRECTION**

This study examined medical-surgical nurses’ experiences with restraints. The findings cannot be transferred to other settings such as intensive care units or psychiatric settings. Further qualitative work should be done in other areas of nursing where restraints are used. A second limitation is that this study included a relatively small number of nurses from different shifts and of different ages.
and backgrounds from 1 hospital. Although the sample was purposively selected, future work that includes continued diversity of medical-surgical nurses from a greater variety of hospitals should be conducted.

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