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Nurses' Attitude towards Usage of Physical Restraints in a Teaching Hospital in Singapore

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Abstract

The usage of physical restraints is widespread among the agitated elderly patients in the wards in an acute hospital setting, especially when they have cognitive issues and exhibit challenging behavior. The nurses are the frontline personnel looking after these agitated elderly and often have limited resources in managing these elderly with challenging behavioral symptoms. Physical restraints use serves to restrict mobility and often gives false belief of reducing harm and fall risk among the elderly when supervision is inadequate. Restraining an elderly also gives a sense of false security that patient safety is ensured. Nurses have negative feeling towards restraint use and despite this, when weighed against patient safety, most nurses advocate to restrain their patients.

Keywords: *Physical restraint, nurses' attitude, elderly patients, non-psychiatric.*

Introduction

Restraints are defined as means/ method used to restrict one's freedom of movement to a position of one's choice. Common physical restraints used include bed rails, belts (which are attached to the bed, chair, wheelchair), bands around the limbs, waist, body vest, geriatric chairs with tray tables attached and mittens.

Prevalence rates of restraint usage in the hospital settings vary widely between countries, ranging from no use to 50%. (1-4) Physical restraints are used to reduce falls, especially when the patients/ residents are non-compliant with instructions and are agitated and restless. The elderly with unsteady gait who wander are a great source of stress for the busy nurses in an acute hospital as the freedom of mobility are risks for falls and injuries. Sometimes, physical restraints are used to reduce dislodgement of medical equipment like lines and tubes in the high dependency and intensive care units. (1)

Physical restraints have not been convincingly shown to reduce falls in both the hospital and nursing home settings. (5) On the contrary, serious injurious falls have been consistently reported among those on restraints. (6) In addition, physical restraints enforce immobility which has been well known to cause functional decline, urinary retention, constipation, agitation, negative cognitive outcomes and frustration. (5) Therefore, physical restraints have been gradually fading out of favour and discouraged in most Western countries. In the UK, it is against the law to restrict one's freedom of movement unless there is harm to others while exercising that right.

Physical restraints are still widely practiced in Asian countries. (7, 8) Most of the indications were for management of behavioural symptoms (agitation, restless, violent), fall prevention and dislodgement of medical equipment like the feeding tubes. Some of the elderly put on restraints were not tried off on a

regular basis (6). This paper aims to look at the nurses' attitude towards application of physical restraints for management of behavioural symptoms and fall prevention.

Method

A survey form which consisted of 37 questions were created by the authors and circulated to the wards for the nurses to fill in. The forms were anonymous. Data collected include gender, years of experience, age brackets, highest nursing degree obtained.

The survey consisted of 3 sections. The first section assesses the nurses' knowledge on the use of physical restraints. This section include correct placement of restraints, frequency of patients' assessment while being restrained, alternatives to restraint usage, refusal/ consent process prior to restraint application and reports of deaths while on restraints.

The second section of the survey form assesses nurses' attitudes towards physical restraint usage. The questions asked if the nurse feel bad, guilty, embarrassed while they put patients on restraints. Indications for restraint use was for convenience and shorten nursing time when staffing is short. Question was also asked if restraint use reduce falls, and legal protection for them should the patient falls.

The third section of the survey asked about the nurses responsibilities while their patients remained on restraints. The nurses were asked if they were aware of alternative management strategies to restraining their patients, decision making process prior to initiation of restraint, checklist for patient safety while on restraint and periods when the patients are taken off restraints and observed for further signs of agitation.

The forms were distributed to all the general wards in the hospital, and nurses are encouraged to fill in the survey. There were no incentives or rewards involved in participating with the research activity. The study was approved by the hospital's ethics committee. The forms were returned to the team of researcher by the end of one week. There was a total of 262 forms returned. The data collected were analysed by a statistician.

Results

The forms were given out to all the wards in the hospital of 1000 bed capacity. The General Medical wards house patients with acute medical problems and the surgical wards have a mixture of patients from all the surgical disciplines including General Surgery, Orthopaedic Surgery, Urology and Ear Nose and Throat (ENT). The urology and ENT departments are small departments and together, have a hand full of inpatients at any one time. The department of Geriatric Medicine and Rehabilitative Medicine share a separate building of 290 beds. The distribution of nurses from the various disciplines and specialities are as shown in table 1.

A total of 262 survey forms were returned to the research team. There were 182 Registered Nurses (RN) and 80 Enrolled Nurses (EN). Majority of the nurses in the hospital were female (246) and only 16 were male nurses who responded. The nurses' age and highest qualifications in nursing attained were as listed in Table 2 and 3 respectively. The majority of the nurses responded to the survey were young, in the 20-30 age group with a Bachelor in Nursing or Diploma in Nursing.

Table 1. *Distribution of ward nurses by disciplines*

Disciplines	Number of nurses
Geriatric Medicine	95 (36%)
General Medicine	82 (31%)
General Surgery and Orthopaedic Surgery	85 (32%)
Total	**262**

Table 2. *Age distribution of Nurses*

Age	Number of Nurses
20-30	187 (71%)
31-40	56 (21%)
41-50	17 (7%)
>51	2 (1%)

Table 3. *Number of years working as a nurse*

Number of years working as nurse	Number of nurses
<5	134 (51%)
5-10	101 (39%)
11-20	21 (8%)
>20	6 (2%)

Table 4. *Distribution of Nurses' qualifications*

Qualification	**Number of Nurses**
Bachelor in Nursing	138
Masters in Nursing	2
Advanced Diploma	23
Diploma in Nursing	72
Higher Certification	27
Total	**262**

Most of the nurses surveyed 229 (87.4%) agreed that restraints are safety vests or garments designed to improve patient safety. There were 159 (60.7%) nurses who recognized that restraints were not to be used as a convenience when they were busy or short staffed. Autonomy of the patients to refuse restraints were acknowledged as valid among 182 (69.5%) of nurses, with 63 (24%) nurses who felt they can override patient's autonomy in refusing the application of restraint. Most of the nurses (83%) were sensible to know that they required consent to put a patient on restraint. There were 165 (63%) nurses who believed that patients' family have a right to refuse restraint, with 24% who disagreed and 11% who were not sure of the role of family's decisions on restraint use. Most nurses 62% however, believed that if they were patients, they should have a say if they were to be restrained.

There were 71 nurses (27%) who agreed that there are alternative ways available to manage the agitated elderly patients, with the majority 150 (57%) who believed restraint is the best method to manage the agitated elderly. The remaining nurses surveyed admitted they were unsure of any other methods to manage the agitated elderly. Almost equal proportions of nurses surveyed were aware (30%), not aware (32%) or not sure (38%) that restraint usage had been associated with deaths. There were 177 (68%) nurses who were aware of strangulation risk associated with restraint usage. The belief that physical restraint reduces falls was observed in 204 (78%) nurses, with 22% being aware that restraint has not been proven to reduce falls.

The majority of nurses at 90% were aware that skin breakdown may occur while the patients were on restraint, and 73% were aware that restraints should not be too tightly applied.

Over half of the nurses 56% felt guilty while placing their patients on restraint, and 50% of the nurses did not feel embarrassed if the patients' families were watching them while they were putting on the restraint for their loved ones. Once the patients were on restraints, 210 (81%) of nurses felt bad if their patients became more upset or more confused while being restrained. There were 189 (72%) nurses who felt that patients lost their dignity while they were being physically restrained, while the remaining 28% did not agree. There were 189 (72%) nurses who believed that physical restraints usage may protect them and their hospital from legal actions should the patients under their care had a fall and family decided to take legal actions. Half the nurses believed leaving the patients on physical restraints reduced their time taken for nursing care. When asked if more patients were put on restraints for their safety while the nurses were short staffed, 149 (57%) of nurses admitted they might do so.

The hospital where the authors work, an acknowledgement from the physician in charge is

mandatory for their patients to be physically restrained, even though the nurses have the autonomy to initiate and discretion to choose the means of restraint. The nurses who agreed that decisions should follow a physician's order was present among 240 (92%) of nurses, and the remaining 8% did not think it was necessary to do so. There were 249 (95%) nurses who routinely explained to their patients the reasons for application of restraints, while 229 (87%) of nurses would also informed the patients' relatives the reasons for restraint use.

While the patients are, on physical restraints, there are currently no hospital policies which require that the nurses routinely review the indications for continuing to restrain the patient. It is up to the nurses' discretion to trial their patients off restraints from time to time. Almost all the nurses, except 2 will routinely assess if the restraints may be removed, although the intervals between trials off are not described. However, 75% of the nurses disagreed to try patient off restraints for patients' safety reasons. All except a small minority of nurses (3%) made decision regarding when the patient can be managed without a restraint, following which, 98% of the nurses would inform their patients of restraint removal.

When the above data was analysed according to the different departments (Geriatric Medicine, General Medicine and General Surgery), there was a difference among the surgical ward nurse who were not aware that restraint use increases the risk of skin breakdown. The other differences were minor which did not reach statistical significance. The years of working experience too, did not make any significant difference among the various domains.

Discussion

Physical restraints are still widely used among the elderly patients in the hospital setting and the long term care setting as means to prevent falls. Restraints are defined as means or method which purposely limit one's freedom of movement. Items which have been classified as restraints include bed rails, mittens, chairs with belts and attached tables, limb restraints and body vests. In the hospital setting, the indications for restraint use are for patient safety, fall reduction and removal of medical equipment such as indwelling urinary catheters, feeding tubes, endotracheal tubes, etc. Restraints have not been shown to reduce falls. On the contrary, the falls which occurred while the patients were being restrained are more likely to be associated with serious injuries. (8, 9) In the survey conducted, the nurses were all aware of appropriate skin care and skin breakdown associated with restraint use. Over 87% of nurses surveyed believed that restraints are safety method or garments for the patients. The belief that physical restraint reduces falls was observed in 204 (78%) nurses, with 22% being aware that restraint has not been proven to reduce falls. This is indeed a worrying trend and education on restraint usage, indication and proper choice and technique on restraint application may need to be put in place for patient safety.

In the survey conducted, there were slightly more nurses from Geriatric wards than the other wards. It was a surprise to learn that the nurses working in the Geriatric wards were performing just as poorly as the other wards in terms of attitude towards restraint use. This may be explained by limitation of manpower. The general medical and surgical wards are occupied by patients who were more acutely ill, with a higher turnover and frequent staff movement sending patients for investigations and procedures. The Geriatric wards conversely, have slower patient movement. However, the care burden is heavier since the elderly patients are in the oldest old group (age >80) with most needing heavy assistance with their ADLs. The elderly patients in the Geriatric Wards are also more likely to have dementia with behavioural symptoms, which might have led the nurses to utilize restraints as safety measures.

The population where the authors work has a 10% incidence of dementia among those over the age of 60, with increasing trend among those who are older. (10) It was estimated that point prevalence of elderly occupying the hospital beds stand at 50% currently, and of the elderly in the hospital, about 40-50% have cognitive issues. About half of the elderly living with dementia have not been formally diagnosed. Dementia affects an individual's cognition, with impairment in their function and emergence of behavioural symptoms. The behavioural and psychological symptoms of dementia (BPSD) cause significant caregiver stress and is a major determinant of nursing home placement. In a busy hospital and nursing home

setting, especially when manpower is short, more often than not, the elderly with BPSD will end up being restrained for their safety. The survey showed that 57% of nurses believed that restraints are the best method in managing problematic behaviours, while only 27% are aware of alternatives to manage behavioural symptoms without using restraints.

Restraint usage is associated with immobility related complications like constipation, retention of urine, pressure sores, functional decline, urinary infection, etc. In some cases, restraints have been associated with delirium, agitation, depression, decline in cognition and even death. (11) Over 30% of the nurses surveyed were not aware of risk of death or strangulation associated with restraint use.

Managing BPSD without restraints involve looking at various factors which caused the elderly to be agitated, such as physiological needs, emotional needs and physical discomfort. (12) The nurses in the hospital have not been well taught on the management of BPSD, except the nurses working in the Geriatric wards. Even then, trying to figure out causes of agitation and restlessness take time and effort. To better manage the agitated patients, one needs to apply a different model of care, of which person centred care (PCC) have been well shown to reduce agitation and use of antipsychotics. (14) PCC involves getting to know the persons with dementia with personal information collection in order to understand the situations from their perspectives. PCC focuses on non-pharmacological management strategies in designing meaningful activities which provide comfort and a state of well-being. To practice PCC in an acute hospital setting is challenging in terms of time constraint and rapid patient turnover. PCC is better practiced in long term care setting where the residents stay for years and there is time to observe the outcomes of various management strategies.

While the patients are being restrained, it is important to continue the routine care for them, including attending to their physical needs like pain management, ensuring adequate nutrition and hydration, bladder and bowel care. The emotional and social support are often neglected. Putting an agitated elderly with cognitive issues on restraints further increase their physical discomfort and unmet needs. The elderly with dementia often have problems communicating their needs to their caregivers, resulting in emergence of challenging behaviours. Understanding their unmet needs is the key in managing the BPSD and restraining them will only increase their frustration and worsens their behavior. (9, 13) While the patients remained on physical restraints, their needs should be attended to and restraints should be kept to the minimum duration with frequent trials off to see if their behavior is better and they can be taken off their restraints. In the survey, almost all the nurses, except 2 will routinely assess if the restraints may be removed, although the intervals between trials off are not described. Assessment of behavior does not always result in nurses who were brave enough to take off the restraints. The majority, at 75% of the nurses disagreed to try patient off restraints for patients' safety reasons. The authors have since put in place a hospital wide policy where patients must be tried off restraints at least once a day and there is a care bundle for patients while on restraints to ensure they are not neglected.

The ethical dilemma with restraint use is often challenging. Taking into considerations the 4 pillars of medical ethics, the first principle of autonomy is often unreliable among the elderly who are agitated and confused. Occasionally, their caregivers or family would request for the hospital staff to restrain their loved ones for fear of their safety. Some of the families routinely restrain their loved ones at home when close supervision is unavailable. In the author's hospital, the restraint order must be acknowledged by the physicians in charge. The second and third orders of beneficence Vs non-maleficence are often the most challenging. Advocating for a procedure (restraints) with harmful effects (non-beneficence) has to be weighed against maleficence where complications associated with restraints are well known. The physicians' role is always looking after the patients' best interest which may be conflicting when trying to protect the elderly's risk of harming themselves against allowing them freedom of movement- autonomy Vs beneficence. While restraining them might provide temporary relief or on occasions, restraint may actually make things worse by causing them to be more agitated which may actually result in physical injuries. (14, 15, 16) The hospital requires consent from the family prior to initiation of restraints, with risks carefully explained.

Nurses may be allowed to initiate restraints as they are the frontline staffs who are faced with a difficult patient. The nurses surveyed were aware of patient's autonomy among 182 (69.5%), with 63 (24%) nurses who felt they can override patient's autonomy in refusing the application of restraint and 83% of nurses were sensible to know that they required consent to put a patient on restraint. There were 165 (63%) nurses who believed that patients' family have a right to refuse restraint, with 24% who disagreed and 11% who were not sure of the role of family's decisions on restraint use. It is interesting, however to note that if the table was turned, most nurses 62% believed that if they were patients, they should have a say if they were to be restrained.

The positive findings of nurses' negative feelings towards restraint usage provides hope that knowledge and training may reduce the restraint usage in the hospital. Over half the nurses 56% felt guilty while placing their patients on restraint. Once the patients are on restraints, 210 (81%) of nurses felt bad if their patients became more upset or more confused while being restrained. There were 189 (72%) nurses who felt that patients lost their dignity while they are being physically restrained, while the remaining 28% did not agree. Perhaps the move towards a restraint free hospital begins with filling in knowledge gaps, knowing the harms and benefits, learning about the unmet needs, indications for restraint and the ethical dilemma with restraint application.

Conclusion

Working as a nurse in a busy acute hospital with high turnover of patients is challenging enough without the extra burden of caring for the elderly exhibiting challenging behaviours while under their care. Usage of physical restraints is widespread especially when manpower is short and patients are at risk of harming themselves or others. Fall prevention is also a big challenge when there is shortage of manpower. Physical restraints have been associated with more harm than benefits and therefore must be carefully weighed and family's consent obtained before application.

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