Nurses' Attitudes and Knowledge on Physical Restraints Use at pre- and post- Workshop in Singapore Nursing Homes

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Introduction and Aim

Use of physical restraints is a possible nursing intervention for frail, cognitively impaired older persons, when a perceived need arises. However, decisions about the use of physical restraints are complex and ethically laden[1]. The lack of sound evidence suggesting effectiveness of physical restraint use[2], the negative consequences of restraint for nursing home residents[3], and the limited available alternatives[4] complicate the decision-making process. Nurses' attitudes have been identified as one of the main factors affecting the decision to use or to remove physical restraints[1].

The iCARE workshop is designed to use interactive lecture and experiential learning approaches in understanding dementia, encouraging reflection on the experience, and using evidence based non-pharmacological approaches to manage change in behaviour. A segment of the workshop included a lecture on physical restraints use and an experiential activity that allows the participants to experience what it was like to be applied physical restraints on and to depend on others for care.

This study examines pre-post iCARE workshop session knowledge, perceived importance, and feelings regarding the use of physical restraints on older persons in a nursing home setting.

Materials and Methods

12 nurses from five subsidized nursing homes participated in the 3-day iCARE workshop held in October 2014. Following the 40-minute lecture on restraint management and 30-minute review on restraint work policies, participants took part in an experiential activity. In the 40-minute activity, participants were asked to form into pairs and take turns to be applied wrist restraints and fed tea and biscuits by their partner.

Using a pre-post design, all the participants rated self-perceived importance of using physical restraints for various reasons before the activity and after, using a tool adapted from the Perception of Restraint Use Questionnaire (PRUQ)[5]. The tool was adapted for the nurses of nursing homes by revising some of the items that were more relevant to the nursing home setting in Singapore.

The self-administered survey also included a 4-item questionnaire for the nurses to rate their feelings on a 4-point scale when applying physical restraints on residents and 10 true/false statements that assessed their knowledge base. The participants were reassessed on their knowledge at the session conclusion.

Results

Of all the 12 participants who have agreed to participate in the study, 92% were female. 33% were registered nurses, 25% enrolled nurses and the rest were nursing aides.

Knowledge on Physical Restraint Use

The 10-item knowledge assessment results that reflect the participants' pre-post knowledge on application of physical restraints is shown in Table 1.

Table 1. Knowledge assessment on use of physical restraints: Number and percentage of correct responses before and after activity

Statement [Correct response]	Pre-activity, N correct (%)	Post-activity, N correct (%)	Change, N correct (%)
Physical restraints can definitely be used in highly aggressive, combative, agitated, or suicidal patients. [False]	1 (8%)	11 (92%)	+10 (84%)
The body vest allows resident to roll over in bed. [False]	2 (17%)	11 (92%)	+9 (75%)
Restraints should be used when you can't watch the residents closely. [False]	4 (33%)	11 (92%)	+7 (59%)
Deaths have been linked to the use of vest restraints. [True]	4 (33%)	11 (92%)	+7 (59%)
The body vest is contraindicated in severe Chronic Obstructive Pulmonary Disease (COPD). [True]	6 (50%)	11 (92%)	+5 (42%)
Restraints should be put on snugly so that there is no space between the restraint and the resident's skin. [False]	9 (75%)	11 (92%)	+2 (17%)
When resident is restrained in bed, the restraint should not be attached to the bed rails. [True]	10 (83%)	10 (83%)	0 (0%)
Good alternatives to restraints do not exist. [False]	10 (83%)	10 (83%)	0 (0%)
A restraint should be released every two hours, if the resident is awake. [False]	10 (83%)	10 (83%)	0 (0%)
Bed sheet may be used as restraints when necessary at times. [False]	9 (75%)	9 (75%)	0 (0%)

Overall physical restraint use knowledge was higher at post (9/10 correct) than at pre-testing (5/10 correct). At pre-session, incorrect answers were related to use of physical restraints in controlling residents' behavior and possible negative outcomes of physical restraint use. For instance, only one participant indicated "false" for the statement "Physical restraints can definitely be used in highly aggressive, combative, agitated, or suicidal patients" (Table 1). However, at post-activity, most of the responses were correct.

Results (Cont'd)

Perceived Importance on Physical Restraint Use

Table 2 shows the increase/decrease in perceived importance on applying physical restraints on nursing home residents for various reasons at pre- and post- session.

Table 2: Change in perceived importance on physical restraint use

Reason for Use of Physical Restraints	Not Important, +/- N (%)	Somewhat Important +/- N (%)	Important / Very Important +/- N (%)
Substituting for staff observation?	+9 (75%)	-10 (83%)	+1 (8%)
Preventing a person from taking things from others?	+6 (50%)	-8 (67%)	+2 (17%)
Protecting a person from falling out of bed/chair?	+3 (25%)	0 (0%)	-3 (25%)
Pulling a person from pulling out a catheter/ feeding tube/IV?	0 (0%)	+2 (17%)	-2 (17%)
Preventing a person from getting into dangerous places or supplies?	+1 (8%)	+2 (17%)	-1 (8%)
Preventing a person from wandering?	+2 (17%)	-7 (59%)	+5 (41%)
Protecting staff or other persons from physical abusiveness / combatness?	-2 (17%)	+1 (6%)	+1 (6%)
Managing agitation?	-2 (17%)	+2 (17%)	0 (0%)

Physical restraint use was generally rated as less important at post-session for reasons such as substituting restraints for staff observation, preventing residents from falling out of bed, and pulling out a catheter. Common rationales perceived as more important for physical restraint use at post-session were: preventing a person from wandering, protecting staff or other persons from physical abuseness/combatness, and managing agitation.

Perceived Feelings on Physical Restraint Use

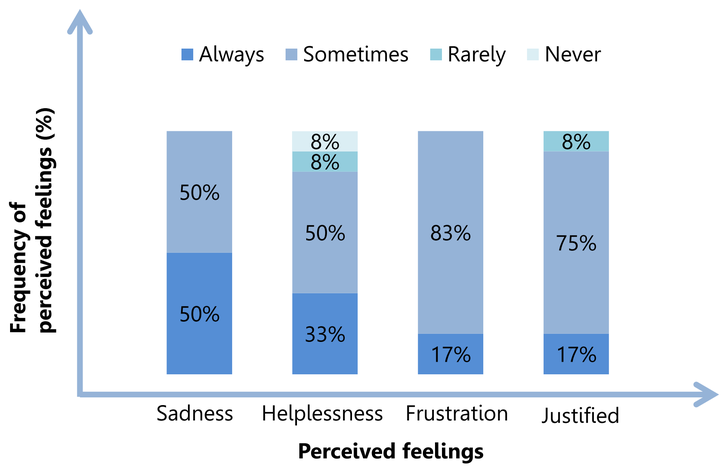

Figure 1: Results from survey items that assessed feelings regarding physical restraint use

All the participants reported that they always/sometimes had feelings of sadness and frustration when they applied physical restraints on the nursing home residents (Figure 1). Helplessness was experienced always/sometimes by 83%, whereas in 8% of the participants, helplessness was never felt. However, most (92%) expressed that the application was always/sometimes justified.

Discussion & Conclusion

Based on the pre-session knowledge assessment scores, most of the participants underestimated the negative effect of physical restraints applied to the residents. However, the overall improvement in assessment scores at post-session reflected the session's potential in improving overall knowledge in the participants on the use of physical restraints.

At pre-session, physical restraint use is perceived as a feasible mean to prevent falls, limit challenging behavior, and lower treatment interference risk. At post-session, participants generally attributed lower importance to the use of physical restraints as a safety measure in caring for the residents. However, there was increased perceived importance in using physical restraints to control residents' behaviour.

Although most participants felt that applying physical restraints was for justifiable reasons, they frequently experience sadness, helplessness, and frustration. This could result in decreased motivation and ability to provide good nursing care[6]. More attention should be given to the role of nurses as key persons in decision-making regarding the use or removal of physical restraints, especially as mediators between the residents, family members and other staff members.

The session has improved the nurses' understanding of physical restraint use and decreased perceived importance in using physical restraints for safety-related reasons. This showed its potential for improving knowledge and skills of future nursing trainees who partake in the care of the residents. However, more comprehensive nursing knowledge in assessing potential risks and benefits of restraint use to manage residents' challenging behaviour and exploring possible alternatives is required.

References

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