Relationship between Social Desirability and Perception of Physical Restraint Use Among Japanese Nurses

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PURPOSE

As the growth of aging society, ethical consideration to elderly people has been a big issue. However, it is not rarely to conduct physical restraint use for elderly people in medical settings for an acute phase unavoidably. Although chemical restraint is common for elderly to prevent medical accidents in European and American society, there are many cases to use physical restraint for similar cases in Japan spontaneously. In 2007, the Japanese Ministry of Health, Labor and Welfare launched and developed the manual to minimize restraint. In 2008, that, in a court, it is illegal that a nurse conducts a physical restriction without patient compliance; was sentenced. Along with the social movements, nurses confront to their ethical dilemma between priority to medical treatment and nonmaleficence.

As long as the decision making to use physical restraint depends on assessment of nurses, the nurses' attitude and perception toward physical restraint is crucial to demonstrate in clinical settings. This research aims to reveal the relationship between the perception of physical restraint use and social desirability of nurses and explore the educational issues to be resolved.

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DEFINITION OF WORDS

Perception of physical restraint use: thoughts of necessity using a device that hinders free movement, physical activity, or normal access to one's body (Quinn,1994)

Social desirability(TSD) : a response tendency with self report measures with socially desirable manners divided into 2 factors; self-deception(SD) and impression management (IM) (Marlowe and Crowne, 1961)

Ref: Strumpf N. & Evans L. Physical restraint of the hospitalized elderly: Perceptions of patients and nurses, Nursing Res. 37:132-137,1988
Crowne, D. P &Marlowe, D. a new scale f social desirability independent pf psychopathology, Journal of Consulting Psychology, 24, 349-354,1960

METHODS

Subjects
The convenient sample of licensed nurses working in acute health care institutes in Japan

Measurement tools
Perception of restraint use:19 items-questionnaire modified PRUQ developed by Strumpf and Evans(1988) originally . The Likert scale range was 5. 5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree.
Social desirability: 33 items-questionnaire of Social Desirability Scale(MC-SDS) developed by Marlowe and Crowne(1960) , translated into Japanese by Kawauchi (2006) . The answer type was two, "yes=1" or "no=0".
Demographic factors, age, sex, the year of experience nurses, the tenure, academic degree of the education of nursing were asked.

Survey procedure
After explaining the purpose of this research by oral and document, the volunteers to agree to participate were gathered. Consent to participate was confirmed by agreement forms. The questionnaires applied to the number of volunteers was sent to each hospital. The questionnaires were answered anonymously.

Ethical consideration
This survey was conducted after recognition of ethical committee held in school of health sciences and nursing, Juntendo University.

RESULTS-1

Characteristics of participants
The total number of participants: 310 (men 31, women 279). The distribution of respondents was followings.

Table 1-1 Participants' professional background

	License					Academic degree					
	RN	LPN	MW	PHN	Tech	junior college	nursin gBS	non-nursin gBS	MS	No ans
men	29	2	0	7	21	2	6	0	1	1
women	260	9	10	20	226	22	21	3	1	6

Table 1-2 Participants' age, tenure, experience and distribution of their workplace

	n			age	year of tenure	year of experience
ward	188	men	avr	28.5	4.4	5.4
operation room	23		sd	6.2	3.8	4.4
outpatient	33	women	avr	34.3	7.8	10.7
ER	12		sd	10.7	6.8	9.0
ICU	28	total	avr	33.7	7.4	10.2
others	8		sd	10.4	6.6	8.8
no ans	18					

Distribution of Social desirability
In both self-deception and impression management, there were no significant differences between sex, academic degree, work place. There were significant relationships between age and the score of SD positively(r=0.25, p<0.001) , also year of experience(r=0.23, p<0.001),year of tenure (r=0.17, p<0.05).

Table 1-3 Participants' SD score by sex

		SD	IM
men	avr	10.43	7.4
	sd	2.78	3.75
women	avr	10.14	8.14
	sd	3.3	2.86

RESULTS-2

The factor analysis and internal credibility of modified PRUQ
To confirm the construction of items, factor analysis was demonstrated.
The necessity of physical restraint caused by elder or dementia (7 items), prevention of falling (3 items), avoidance of incident (4 item), avoidance of severe medical incident (3 items). Those of Cronbach' alpha were 0.87, 0.87, 0.81,0.77, each. The meaning of "severe incident" was defined "if something happen and leave it, critical damage occurs certainly".
As simple constructive categories, shortage of staffs to observe patients (1 item) and general concern for patients restraints (1 item) were depicted.

Table 2-1 Rotated Component Matrix for 4 categories

	elder or dementia	falling	incident	severe incident
Keeping a confused older person from bothering others	0.97			
Providing quiet time or rest for an overactive older person	0.73			
Preventing from wandering	0.72			
Preventing for safety when judgment is impaired	0.51			
Protecting staff or other patients from physical abusiveness	0.49			
Management of agitation	0.48			0.38
Preventing form taking things from others	0.43			
Protecting from unsafe ambulation		0.91		
Protecting from falling out of bed		0.83		
Protecting from falling out of chair		0.48		
Preventing from removing a dressing			0.80	
Preventing from breaking open sutures			0.77	
Preventing from pulling out a peripheral tube			0.45	0.37
Preventing from getting into dangerous places or suppliers			0.34	
Preventing from pulling out a feeding tube				0.66
Preventing from pulling out a airway tube				0.66
Preventing from pulling out IV feeding tube			0.44	0.55

RESULTS-3

The relationship between PRUQ and TSD, demographic factors
The perception to physical restraint use was affected by self-deception from social desirability and the age significantly. General concern to patient restriction was significantly correlated to impression management and age.

Next, TSD group was divided into 3 groups by the total score (High: ≥24, Mid: 16≤ and ≤23,Low: ≤15).
As a result of having conducted analysis of variance between PRUQ and TSD groups, in falling category, low-, mid- and high–group had a significant difference, respectively. (p<0.05). The result of Pearson correction analysis of each group had different features. At the low-group, there were negatively correlated between age and PRUQ-elderly and severe incidents (p<0.05). At the mid- group, there were negatively correlated between age and all PRUQ categories (p<0.05 or p<0.01). At the high- group, there was negatively correlated between age and PRUQ-severe incidents (p<0.05).

Table 3-1 Intercorrelation among variables

	TSD	IM	SD	age	tenure	experience	Low-TSD (age)	Mid-TSD (age)	High-TSD (age)
elder or dementia				-0.12 *			-0.25 **	-0.25 **	
falling			-0.13 *	-0.12 *				-0.18 *	
incident	-0.12 *		-0.13 *	-0.15 *	-0.16 *	-0.14 *		-0.17 *	
severe			-0.13 *	-0.29 **	-0.25 **	-0.30 **	-0.24 *	-0.28 **	-0.31 **
shortage of staff							-0.19 *		
general concern		0.13 *		0.21 **	0.13 *	0.21 **		0.30 **	

DISCUSSION

Affection of demographic factors to Social Desirability and PRUQ
Three were positive correlations between the age, tenure, and years of experiences of the nurses and self deception(result-1). Self deception means that we choose socially desirable behavior for unconsciousness. As an old nurse, it was implied, what we tend to answer, "we do it" for the matter that there is not readily while it is said that it is desirable in society. For elder nurses, the bias of social desirability might be considered especially for ethical concern.

There was a negative association between the age, tenure, and years of experience of the nurse and need recognition of the suppression(Table3-1). This result might be considered by Social Desirability bias. Meanwhile, as for the suppression need recognition for high educational background of the nurse and serious accident prevention, is positive; was correlative. This means young nurses with high education percept the need for prevention of severe accidents strongly.

Affection of the degree of social desirability to PRUQ
As for falling category, high-group has negative perception the need of physical restraints compared to low- and mid-groups. This means the perception the need caused by prevention to falling is easily affected by social desirability.

By comparing to low-, mid- and high groups' Pearson correlations, age is strong relationship with PRUQ each category(Table3-1). Especially, in mid group, all categories are affected by age. This means age is strong predictor to the decision making to physical restraint use without the bias of social desirability.