



# A Taiwan's National Survey of Nursing Home Staff's Cognition, Attitude and Barrier on National Incident Reporting System

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## Background

Incident reporting is an important strategy to assure patient safety in all kinds of healthcare facilities. A national incident report system named as the Taiwan Patient Safety Reporting System (TPR) has established in Taiwan since 2006. However, participation rate of the TPR in long-term-care (LTC) facilities is low. By 2013, 47 nursing homes participated in the TPR and they reported a total of 544 incidents (TJCHA, 2014). Incident reporting status in LTC facilities and staff's reporting cognition, barrier and attitude have not fully explored. Therefore, staff's incident reporting cognition, attitude and barrier is worthy of concern in Taiwan's LTC facilities.

## Purpose

The purpose of this study is to explore nursing home staff's incident reporting cognition, attitude and barrier toward the TPR.

## Method

### Design and sample

This study used questionnaire survey. Facilities listed in the 2013 Taiwanese registry of national nursing homes were randomly sampled by using a cluster sampling approach. Total 37 nursing homes had participated. A total of 336 valid questionnaires were used for statistical analyses. The response rate was 98%.

### Instrument

1. A questionnaire of personal and work characteristics was developed to collect data regarding participants' age, gender, education, position, years of employment by total and current service.
2. An "incident reporting survey" questionnaire had 11 questions and collected data regarding the method and management of the incident reporting in the institution.
3. A "TPR reporting cognition scale" had 16 questions with agree or disagree response. Its content validity index (CVI) was 0.99 and KR-20 was 0.91.
4. A "TPR reporting attitude scale" had 9 questions with 5-point Likert scale. The higher the total score, the more positive attitude showed. Its CVI was 1.0 and  $\alpha$  was .92.
5. A "TPR reporting barrier scale" had 11 questions with a 5-point Likert scale. The higher the total score, the more the barriers encountered. Its CVI was 1.0 and  $\alpha$  was .96.

### Statistical analysis and ethical consideration

The study had approved by Institutional Review Board. Data were analyzed by the Chinese version of SPSS 19.0 software. Descriptive statistics included frequency, percentage, mean, and standard deviation.

## Results

A mean age was 36.3( $\pm 9.3$ ) for all participants. The average year of current service was 4.8 ( $\pm 4.8$ ). Nurses accounted 58.3% of this sample; allied health care staff and administrators accounted 29.5% and 12.2% respectively.

Fall incident was the most common incident reported in last 12 months, and it accounted for 94.6% of all incidents. Next was tube removal incidents (59.5%). Participation rate of the TPR in this sample was 48.6%.

While the maximal score of each scale was transformed to 100, the means for TPR reporting cognition, attitude and barrier were 70 (SD=3.56), 77 (SD=5.45), and 54 (SD=10.98). Staff had the lowest correct answering rate on "a needle-stick injury of staff has to report to the TPR" (12.5%) and "residents' and family members' complaints has to report to the TPR" (48.8%). Staff showed the lowest attitude score on "participating the TPR is beneficial to create a free-punishment of reporting culture". Staff reported the highest barrier scores on "Do not know how to participate in the TPR"; next were "Fear of medical disputes", "Fear of information leak", and "Worry about time consuming".

Table 1. Personal and work characteristics of subjects

Variables	n	%	M $\pm$ SD
<b>Gender</b>			
Male	21	6.2	
Female	315	93.8	
<b>Education</b>			
High school	33	9.9	
Diploma	136	40.6	
Bachelor and higher	166	49.5	
<b>Position</b>			
Nurse	196	58.3	
Director /nurse manager	41	12.2	
Allied health care staff	99	29.5	
<b>Total service (y)</b>			11.63 $\pm$ 8.16
<b>Current service (y)</b>			4.83 $\pm$ 4.82

Table 2. Means of TPR reporting cognition, attitude and barrier

Variables	range	M $\pm$ SD
Cognition	0-16	11.24 $\pm$ 3.56
Attitude	18-45	34.77 $\pm$ 5.45
Barrier	15-75	40.61 $\pm$ 10.98

## Discussion and conclusion

1. The most common incidents occurred in last year were fall and tube removal among participated nursing homes. These findings are consistent to the 2013 statistics in the TPR's annual report of Taiwan (TJCHA, 2014).
2. Participation rate of the TPR in this sample was less than half. To assure resident safety in nursing homes, accreditation policy and campaign for mandated incident report to the TPR is suggested.
3. Staff demonstrated positive on TPR reporting cognition. However, they are not familiar with the types of incidents required for reporting.
4. Staff were concerned about creating a safety culture without punishment for incident reporting.
5. Staff had questions regarding application of participating the TPR, and they also worries about the consequence of reporting incidents to the third party.

According to study's results, creating a free-punishment culture for incident reporting in nursing homes should be prioritized. Interventions should be implemented and targeted to encourage staff and administrators to participate the national incident reporting system. Particularly, implementing continuing education for nursing home staff is necessary to enhance staff's positive incident reporting cognition and attitude, as well as decrease incident reporting barrier.