Reducing staff injury on duty and patient related incidents through promotion of safety attitude and culture during work with various enhancement program

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Introduction
Safety Culture refers to the way in which safety is managed in the workplace. The Cheshire Home Shatin (CHS) has been making every effort to cultivate the concept to the hospital staff. As injury on duties of hospital staff and patients' incidences are the reflections of inadequate safety knowledge and lack of positive safety attitude towards daily hospital work (Piirainen et al 2003), we conducted a survey with a validated Chinese version of the Short Form Safety Attitude Questionnaire (C-SAQ)(Lee, et al. 2008) to assess and evaluate the existing safety attitude of the hospital staff since early 2014 and re-evaluation done on 2015. Taking into account of the survey results, various safety activities and measures were proposed and implemented to enhance staff safety culture, attitude and awareness. This initiative proved that the staff and patients' safety has been enhanced as shown in the drop in injury on duty rate and the number of patient related injuries, while both the teamwork and safety attitude among staff improved accordingly.

Objectives
To evaluate and promote the safety attitude and culture of hospital staff with various enhancement programs with the hope to reduce the occurrence of injury on duty and patient related incidents.

Methodology
The SAQ-C survey is a prospective study conducted yearly from 2014 to 2016. All hospital staff can voluntarily fill in the questionnaire. Various kind of safety culture engagement program and improvement activities will be launched as usual. In SAQ-C, demographics information and five SAQ input dimensions, i.e. teamwork climate, safety climate, job satisfaction, management perception and working conditions will be studied. The answered items are scored by converting a 5-point Likert scale to a 100-point scale. If the final score is 75 or higher, a positive attitude to a given dimension would be counted. The association between each safety dimension and safety behavior will be examined by multiple logistic regression models. A pre-post
comparison of their mean differences by using simple t-test (p<0.05) will be made to
determine any improvement in specific scoring. Besides, the relationship among
change in safety dimension scores, IOD rate and the number of patient incidents will
be explored.

**Result**
The baseline data was collected in early 2014 and the second follow-up survey was
completed in April 2015 with the results demonstrating significant improvement in the
safety climate, management perception and working condition dimensions (p< 0.05),
indicating that staff members have attained a more positive attitude towards
managerial / hospital support in clinical work and safety culture. This initiative has
also corroborated by reducing staff injury of duty (IOD) rate, as well as the number of
reported incidents when compared before (in 2013) and after the implementation of
safety improvement strategic activities (in 2014 and 2015). The IOD rate of hospital
staff dropped significantly from 6.4% (year 2013-14) to 2.2% (2014-15) with about
66% decreased, while the IOD sick leave days also dropped from 90 days in 2013 to
41 days in 2014 (54% decreased). For patient related injuries in CHS, the number of
cases dropped from 34 (year 2013) to 27 (year 2014) and 14 incidents in year 2015
respectively. A total decreased in 58.8 % of reported incidents throughout these
years. These positive findings demonstrated that better safety climate may be
associated with reduced staff injury claims and patient incident events. Our safety
promotion strategies would be continued with regular survey on staff safety attitude
for reinforcement and evaluation of the safety culture in our hospital. We expected
that there would be a sustainable improvement of our safety culture, which would be
illustrated in the findings of the coming survey in 2016.