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Relationship Between Incident Occurrences and Feeling States of Nurses in a Surgical Ward

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Background

Reducing adverse workplace incidents is an area of high priority in healthcare; however, between 1,100 and 1,200 of these incidents occur annually, with no decreases noted over the past 4 years, in Japan. Current measures are therefore ineffective in reducing workplace incidents. This may be because of an inability to distinguish between incidents caused by physical states and those that are considered “careless mistakes.” Emotional states are an example of physical conditions that differ from nurses’ usual status. By clarifying the relationships between adverse incidents and emotional states, we may be better able to take effective measures to reduce or eliminate these incidents.

Aim

We seek to clarify the relationship between workplace incidents and continuous emotional states of nurses. We also aim to obtain suggestions for preventing these incidents by clarifying these relationships.

Method

We targeted nurses who work day and night shifts in a hospital ward between February 1 and 26, 2016. All subjects provided written informed consent for participation. Nurses were given a handheld monitoring unit and were asked to input their subjective emotional states during the morning and evening staff meetings via a 6-level face scale. Here, 6 indicated a “very good” mood and 1 indicated a “very bad” mood. We then obtained incident reports from the hospital. We divided the input scores into three working shifts indicating day, night, and both shifts, and compiled a total of 5 items; at the start of work and at the end of work, at both the start and end of work, change over work, and change over work: absolute value. We analyzed the compiled scores and incident-related reports using a Wilcoxon test and descriptive statistics. Statistical significance was determined by $P < 0.05$.

Result

Twenty-eight nurses (experiment participation rate: 97%) participated in this study. The total number of incidents that occurred during the experimental period was 14, of which 8 occurred during the day shift (57%) and 6 occurred during the night shift (43%). In this research, regardless of type or level, any incident that occurred was considered a single incident. Nurses who had experienced incidents at least once during the experiment were assigned to the Incident Group, and nurses who did not experience incidents assigned to the No Incident Group.

There was a significant association for change over work: absolute value for the nurses’ individual scores and incident occurrences. The Incident Group score was 1.25 points [0.88, 1.80], and the No Incident Group score was 0.75 [0.54, 1.00] ($p = 0.018$). The Incident Group therefore demonstrated larger change over work: absolute amount scores than did the No Incident Group. Increased incident occurrences were associated with greater changes in emotional state values, regardless of whether these were in a positive

or negative direction. In addition, there was no significant association between emotional state score for either group and incident occurrence. There was no significant association between individual ratings of emotional state and incident occurrence, for each nurse.

Discussion

Since the change over work: absolute value score of the Incident Group were significantly larger than that of the No Incident Group, we determined that the fluctuation in emotional states was more closely related to incident occurrence than the direction of change (for example, going from a bad to a good mood, or vice versa). Further, since the emotional states of individual, rather than groups of, nurses related to incident occurrences, the emotional state of each individual nurse was more important when considering relationships to workplace incidents.

There was a significant relationship between the emotional state of the nurse and the occurrence of workplace incidents. By evaluating nurses' emotional states, it may be possible to reduce these occurrences.

Title:

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Keywords:

Incident, emotion and mood

References:

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Abstract Summary:

We seek to clarify the relationship between workplace incidents and continuous emotional states of nurses. Nurses were given a handheld monitoring unit and were asked to input their subjective emotional states during the morning and evening staff meetings via a 6-level face scale. There was a significant relationship.

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Summary of relationship between workplace incidents and continuous emotional states of nurses.

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