Nurse-rated quality of care in 2007 and 2017 within a Norwegian Hospital Trust

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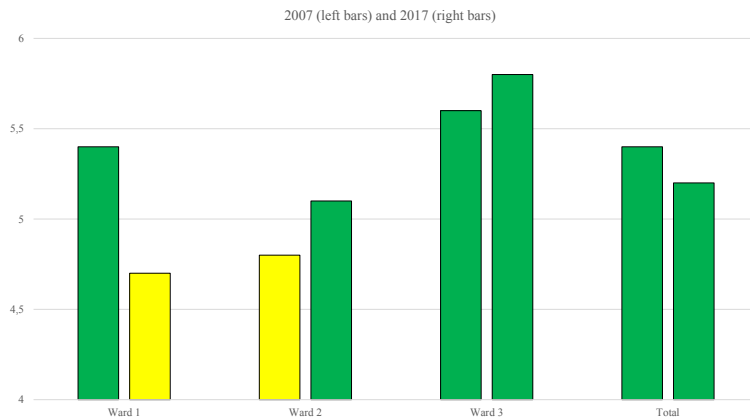2007 (left bars) and 2017 (right bars)

Table 1. Nurses' at internal medical wards within same Hospital Trust, rating of quality of care (average total scores) in 2007 and 2017

- Difference between 2007 and 2017 for all three wards; P = 0.166

- Test for ward*cohort interaction indicated heterogeneous differences between 2007 and 2017; P = 0.003

- "A traffic-light system" was constructed to aid the interpretation of the average group scores: satisfactory (green: ≥5.0), further investigations are recommended (yellow: 4.5-4.99) and further investigations are strongly recommended (red: <4.5). The bares in the figure are coloured according to this system

Background

Nurses' ratings of quality of care has intrinsic value besides being an important predictor of patient outcomes. Thus, assessing nurses' ratings of quality of care over time is vital in continuous quality surveillance. However, the literature is limited on studies displaying methodology and temporal trends on nurse-rated quality of care within clinical microsystems. The objective of this study was to reveal nurse-rated quality of care over time (2007 and 2017) in internal medical wards at a Norwegian Hospital Trust.

Methods

Repeated cross-sectional assessments in three internal medical departments at a Norwegian Hospital Trust were conducted. All registered nurses and axial nurses were invited to participate. The study protocol was approved by the Norwegian Data Protection Official (registration number: 56526). The 2007 and 2017 cohort consisted of 86 and 75 nurses, respectively (60% response rate). Nurses' rating of quality of care was assessed by a Virginia Henderson-inspired six-item questionnaire on how well patients' basic needs were typically covered [1]. The answers alternatives are on an ordinal scale and range from 1 (very poor) to 7 (very good). A sum score was calculated based on the average of the sub items. "A traffic-light system" was constructed to aid the interpretation of the average group scores: satisfactory (green: ≥5.0), further investigations are recommended (yellow: 4.5-4.99) and further investigations are strongly recommended (red: <4.5). Analysis of Variance (ANOVA) was used to study differences in quality of care between the 2007 and 2017 cohort.

Results

The overall quality of care score was 5.37 (SD, 0.74) in 2007 and 5.18 (SD, 0.95) in 2017. This is a small reduction (SD, 0.22), P = 0.166. When we entered the "wards" into the equation, a significant ward*cohort interaction was found (P = 0.003), suggesting heterogenic changes in quality of care over time between the wards. Two of the wards had quite stable scores over time, with average overall 2017 quality of care scores in the green zone. One of these wards was currently in the green zone on four sub-scores while two sub-scores were in the yellow-zone. The other was currently in the green zone on all sub-scores. The last ward had a large drop in the overall quality of care score (SD, 0.79) and drifted from the green to yellow zone between 2007 and 2017. This ward was currently in the green zone in two sub-scores, in the yellow zone in two sub-scores, while two sub-scores were in the red zone.

Conclusion

The overall quality of care score was in the green zone in 2007 and remained stable over time. However, more detailed analysis revealed quality of care variation between the wards, and several sub-scores were in the red and yellow zones. There are some potential hazards with such studies, if the nurses are not truly active shareholders in the process. Consequently, we suggest a method for how nurses can validate and use their own quality of care information along with other knowledge sources, in order to prioritize areas for improvements at a medical ward.

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