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Nursing workload assessment in an intensive care unit: A 5-year retrospective analysis

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Abstract

Aims: To study the correlation between the workload of intensive care nursing teams and the sociodemographic, anthropometric and clinical characteristics of patients in critical condition in a Portuguese Intensive Care Unit (ICU) during a 5-year period.

Background: Currently, indices of nursing workload quantification are one of the resources used for planning and evaluating ICUs. Evidence shows that there are several factors related to critical patients and their hospitalisation which potentially influence the nursing workload.

Design: Retrospective cohort analysis of a health record database from adult patients admitted to a Portuguese ICU between 1 January 2015–31 December 2019.

Methods: *Simplified Therapeutic Intervention Scoring System* (TISS-28) scores of 730 adult patients. Three TISS-28 assessments were considered: first assessment, last assessment and average. The STROBE guidelines were used in reporting this study.

Results: The TISS-28 has an average of 34.2 ± 6.9 points at admission, which is considered a high nursing workload. A somewhat lower result was found for the discharge and average assessments. It shows that basic activities accounted for the highest percentage of time spent (38.0%), followed by the cardiovascular support category (26.5%). The TISS-28 shows consistent results throughout the study period, despite a small trend reduction in the last 2 years.

Conclusions: Lower workloads were found for age ≤ 44 years and with a shorter length of stay. Higher workload was more probable in patients classified in Cullen Class IV (OR = 2.5) and with a normal to higher weight percentile (OR = 1.9 and 1.5, respectively).

Relevance to clinical practice: Knowledge of the factors influencing the nursing workload facilitates the implementation of rules to improve performance in nursing interventions, based on the redefinition of care priorities, increased productivity, human resources management and reduction of additional costs to the organisation, related to possible adverse events, among others.

KEYWORDS

intensive care, nurse manager, nursing, patient-centred care, work organisation

