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Nurse Staffing, Workload, Nursing Care Left Undone, and Patient Safety in Dialysis Units

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Problem. Patient safety is important for high-quality care, yet little is known regarding the effect of nursing indicators on patient safety in dialysis units. The purpose of this study was to examine interrelationships among RN staffing, RN workload, nursing care left undone, and patient safety in dialysis settings.

Methods. The sample consisted of 104 staff nurses who worked in dialysis units and completed a mailed survey. Patient-to-RN ratios were computed based on nurses' responses to survey staffing items. The IWPS Workload Scale, a Nursing Care Left Undone Inventory, a modified Hospital Survey on Patient Safety Culture Handoff and Transitions Scale (HSOPS), and the HSOPS Patient Safety Grade item were used to measure workload, nursing care left undone, patient shift change safety, and overall patient safety. Univariate, multivariate, and simple mediation analyses were conducted.

Results. Only 34% of nurses reported safe patient shift change periods, and 72% rated overall patient safety as very good or excellent. The mean patient-to-RN ratio was 11. Forty percent of nurses reported moderate to high workloads, and 34% reported missing at least three nursing care activities on their last day worked. High patient-to-RN ratios ($\beta = -.245$, $p < .01$), high RN workloads ($\beta = -.271$, $p < .01$), and a high number of nursing activities left undone ($\beta = -.268$, $p < .01$) independently predicted unsafe patient shift change periods. Nursing care left undone ($\beta = -.320$, $p < .01$) was an independent predictor of negative ratings of overall safety in dialysis units. Nursing care left undone was a mediator of indirect effects of RN staffing and workload on both patient safety outcomes.

Conclusion. Patient safety in dialysis units can be enhanced by ensuring adequate RN staffing, reasonable workloads, and a redesign of responsibilities so that nurses have time to complete necessary and important care activities.

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