

# **Acuity-Based Assignments to Decrease Missed Nursing Care**

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## **Structured Abstract**

### **LOCAL PROBLEM**

Nurses strive to deliver quality patient care in a healthcare environment that can be very challenging at times. High patient acuity is one of many variables that contribute to the difficulties that nurses face in the acute care setting. Despite the greatest intentions and persistence to attend to every need and complete every task, nurses may find themselves omitting care when assigned multiple high acuity patients. Previous studies have found that elements of nursing care included in this project are missed an average of 62% across hospitals worldwide. In the study hospital, the nurses on the inpatient renal unit reported recurrent problems with missed nursing care (MNC), which was attributed to unbalanced assignments.

### **PROJECT PURPOSE**

The purpose of this project was to implement the use of acuity-based assignments and subsequently decrease MNC.

### **METHODOLOGY**

The MNC model and Lewin's Change Theory were used to guide this project. The MNC model provided a framework for developing an intervention addressing the inequity of patient assignments. Lewin's theory was used to support the change on the unit. The project took place on a 32-bed renal unit in a nonprofit 189-bed hospital. A task force was formed, which included a charge nurse from day and night shift and two additional nurses from each shift. The task force was formed to finalize the process of implementation and the acuity tool that was used to assist with the transition to acuity-based assignments.

The development of the tool began with a review of three non-copyrighted tools. Elements of the three tools were incorporated into the final product. The use of acuity-based assignments was implemented with the assistance of the task force, and tracking data were collected to ensure proper use of the tool. Minor revisions were made to the acuity tool after reviewing feedback from the nursing staff.

The MISSCARE Survey includes the following three sections: demographic information, Section A, and Section B. In Section A, participants were asked how frequently each element of nursing care listed was missed on their unit on a 5-point Likert scale ranging from 'always missed' (5) to 'never missed' (1). Section B consisted of questions about the reasons for MNC. Participants were asked to answer on a 4-point Likert-type scale ranging from "significant reason (4) to "not a reason for missed care (1). The demographic section of the survey was only completed pre-implementation.

Participants completed Sections A and B of the survey before and after implementation.

### **RESULTS**

Surveys were delivered to 25 nurses who fit the inclusion criteria pre-implementation, 18 were returned. All 18 participants completed the survey a second time after the

implementation of the project. MISSCARE Survey data were analyzed and revealed a pre-implementation MNC mean of 2.84 (SD  $\pm$  0.56) with a range of 1.83-3.67 ((1) being 'never missed' and (3) 'occasionally missed') and a post-implementation MNC mean of 2.59 (SD  $\pm$  0.43) with a range of 1.78-3.22. Pre- and post-implementation MNC mean scores were compared using a paired one-tailed *t*-test resulting in a statistically significant decrease in the MNC mean scores ( $p < .05$ ) following the implementation of the project and use of the acuity tool. Data analysis of Section B of the MISSCARE Survey revealed the following: (a) pre-implementation mean of 3.5 (SD  $\pm$  0.71) for unbalanced assignments as a reason for MNC, and a post-implementation mean of 3.39 (SD  $\pm$  0.85), (b) pre-implementation mean of 3.39 (SD  $\pm$  0.92) for supplies/equipment not functioning properly as a reason for MNC, and a post-implementation mean of 2.56 (SD  $\pm$  0.92), and (c) pre-implementation mean of 3.06 (SD  $\pm$  0.80) for lack of backup support from team members as a reason for MNC, and a post-implementation mean of 2.67 (SD  $\pm$  0.91). Pre- and post-implementation mean scores for reasons for MNC were compared using a paired one-tailed *t*-test resulting in no statistically significant decrease in unbalanced assignments ( $p > .20$ ). However, a statistically significant decrease was found in supplies/equipment not functioning properly ( $p < .01$ ), and lack of backup support from team members ( $p < .05$ ).

## **IMPLICATIONS FOR PRACTICE**

The findings from this project were presented to the nurses on the unit as well as the chief nursing officer. The use of an acuity tool led to balanced assignments, and MNC decreased following implementation of acuity-based assignments. Although acuity-based assignments play an important role in minimizing MNC, follow up is necessary, and other variables should be explored as contributing factors to the decrease of MNC, including those found in this study (supplies/equipment, support of team). Various interventions addressing additional contributing factors should be explored to reduce MNC further. Patient outcome (falls, medication errors, infection rates, etc.) data should also be analyzed to determine the effects of decreased MNC.

Acuity and assignment tracking showed a balancing of assignments on the study unit; however, the perception of unbalanced assignments was not significantly reduced. It is essential to provide the tracking information with the staff to combat this challenge. Updating acuity tools for every patient adds to the workload of nurses; therefore, it poses a challenge for compliance moving forward. A recent increase in resignations, coupled with the effects of the pandemic, further complicates compliance. Creating an electronic version of the acuity tool that is linked to routine shift documentation would eliminate additional work and potentially increase the likelihood of compliance. Ensuring acuity continues to be considered when making assignments is an additional compliance concern that can be mitigated by maintaining open communication among unit level management, charge nurses, and nursing staff. The results of this study were limited by a small sample size of 18 nurses on one unit, with an intervention phase of 3 weeks. A study with a larger sample size conducted over a more extended period would yield more reliable results.

*Keywords:* missed nursing care, acuity-based assignments, acuity tool.

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