Decision-Making Models Utilized by Registered Nurses to Activate Rapid Response Teams

Carlo G. Parker, Ph.D., RN

Background

- The purpose of rapid response teams (RRTs) is to reduce the incidence of cardiopulmonary arrest, lower hospital mortality rates and reduce the incidence of failure to rescue (FTR).
- Between 2007 and 2009, 21,733 people died in U.S. hospitals from failure to rescue.
- Increased frequency of RRT activation has been found to reduce hospital wide patient mortality rates.
- RRTs are underutilized - delayed RRT activation or complete failure to activate the RRT can lead to failure to rescue.
- Data indicate failures in recognizing and reacting to sudden clinical deterioration. Registered Nurses can address failure to rescue by utilizing their critical thinking and decision-making skills.

Methods

Design
Quantitative cross-sectional

Participants
Acute care RNs (n = 167) who had independently activated the RRT at least once during the preceding 12 months.

Instrumentation
Nurse Decision-Making Instrument (NDMI) classified participant’s decision-making process into one of three categories: analytic, analytic/intuitive (mixed model), or intuitive.

Procedure
“Recall a time when you activated the RRT for a patient,” then complete the Nurse Decision-Making Instrument with that in mind. Complete a demographic questionnaire.

“How many calls to the RRT have you have made in the last 12 months?”

Results

» Decision-Making Models Used in RRT Activation:
  • Analytic/Intuitive: 63.9% of the RNs (n = 106)
  • Analytical: 29.52% of the RNs (n = 49)
  • Intuitive: 6.63% of the RNs (n = 11)

» Frequency of RRT Activation: 1 to 15 (M=3.44, SD=2.75).

» Relationship between RN Decision-Making Models and Frequency of RRT Activation:
  • Analytical decision-makers activated the RRT more frequently than either intuitive or mixed model decision-makers.
  • Analytical decision-makers tended to be older, with more years of experience as an RN, than intuitive or mixed model decision-makers.

» Data Analysis:
One-way ANOVA - difference in number of RRT calls among the three decision-making models was significant (p = .001).

» Reliability: Chronbach’s alpha for the NDMI was .84

» Validity: Exploratory factor analysis demonstrated both construct and content validity of the NDMI in this study.

Discussion

The relationship between nurse decision-making models and patient outcomes needs to be further investigated. Because increased frequency of RRT activation has been associated with analytic decision-making in this study, and linked to decreased patient mortality rates in the literature, the potential exists to positively impact patient’s outcomes, reduce hospital mortality rates, and reduce FTR. The results from this study, if replicated in a larger sample, could be used to support and enhance RNs’ use of RRTs.