INSIDE THE MIND OF A

RAPID RESPONSE ACTIVATOR

A Major Paper Presented

By

Gail Maureen Mosher

Approved:

Committee Chairperson	Cynthia Padrus	5/15/11 (Date)
Committee Members	Anne E.S. Carley	5/19/11 (Date)
	Donna Horrocks, MS RN CCRN	5/6/2011 (Date)
Director of Master's Program	Cynthia Padrus	5/15/11 (Date)
Dean, School of Nursing	Jane Williams	7/28/11 (Date)

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Abstract

The health care delivery system in this nation continues to spiral out of control. Statistics report on the shocking number of people who are harmed or die due to medical errors. This project will focus on one process in the armamentarium, the Rapid Response Team (RRT). The purpose of the study was to explore staff nurse perceived barriers and enhancers to an effective RRT. Qualitative design was employed and individual semi-structured interviews were conducted at a 359 bed community hospital. The sample consisted of 15 medical-surgical nurses who had experienced a rapid response (RR) event at this site. Potential subjects were excluded if they had worked in the emergency department or a critical care unit or if they stated a belief that they had not been significantly affected by a RR event. Findings showed that the study participants were exceptionally appreciative of their RRT. They encountered minimal barriers and shared some poignant suggestions that may make valuable contributions to the institution's RRT. Participants expressed a significant desire for more education to develop their self-efficacy and skills in these emergency events. Conclusions and implications for advanced practice are identified and discussed.

Table of Contents.....Page

Inside the Mind of a Rapid Response Activator

Problem Statement

Statistics vary but it is generally purported that 100,000 people die in this nation each year due to medical errors (Institute of Medicine [IOM], 2000). In 2007, The Joint Commission on Accreditation of Healthcare Organizations (TJC, 2008) announced National Patient Safety Goal (NPSG) #16, which requires hospitals to improve recognition of and response to deterioration in a patient's condition. Many studies have established that when unstable patients' needs are mismatched with inadequate resources, adverse events follow. Unintended harm and unnecessary deaths are occurring at an alarming rate despite the best intentions of highly skilled providers. In response to these mismatches and broken systems, the concept of the Rapid Response Team (RRT) has emerged. Sebat (2009) emphasized that the American Heart Association (AHA), the Institute for Health Improvement (IHI), and the Society of Critical Care Medicine have assisted in the introduction and/or implementation of RRTs in over 3,000 hospitals in the United States (US). These efforts align powerfully withTJC's National Patient Safety Goal requiring hospitals to develop systems to better respond to deteriorating noncritical care patients.

It is important to understand the key elements of a RRT (Appendix A). Typically, a RRT has four components: the administrative/design team; the event detection and response triggering (afferent limb); team response and intervention (efferent limb); and quality assurance (outcomes monitoring) Sebat (2009).

RRT composition varies from site to site. Teams may consist of an ICU nurse, respiratory therapist, and a hospitalist or intensivist. Other teams are comprised of ICU-based critical care physicians, nurse practitioners (NPs), clinical nurse specialists (CNSs) or physician assistants (PAs). Terms used for these teams include medical emergency team (MET), rapid response team (RRT), rapid response system (RRS), and critical care outreach team (CCOT) (Peberdy et al. 2007). For purposes of this paper, the term RRT will be used. There is mounting evidence that RRTs are having a major impact on patient outcomes and it has been aptly expressed that it is a patient's right to receive the right care at the right time. RRTs are an integral part of health care reform as they attempt to match patient needs to RRT expertise.

Bobay, Fiorelli, and Anderson (2008) defined failure to rescue (FTR) as the inability to save a patient's life after the development of a complication that was not present on admission. The patient dies as a result of one of the complications that is considered to be preventable. Specifically, the complications that have been identified are: cardiac arrest/shock, deep vein thrombosis/pulmonary embolism, gastrointestinal bleeding, sepsis, and pneumonia. Talsma, Jones, Lui, and Campbell (2010) reported that the Centers for Medicare and Medicaid Services (CMS) have added an FTR measure to be included in the list of CMS non-reimbursable diagnoses. The authors highlighted the recent adoption of the practice of documenting whether a condition is present on admission (POA). Patients with end-stage chronic conditions often have complications

which are difficult to prevent or treat and this needs to be considered when examining the FTR measure.

The National Quality Forum (NQF, 2004) defined FTR as a nurse-sensitive indicator of care. Because of the urgency and gravity of this situation, the RRT has been selected as the topic for this paper.

The review of the relevant literature will be presented next.

Literature Review

The databases searched were CINAHL, Medline, the Cochrane Library, and the Society for Critical Care Medicine, from 1996 to 2010. Keywords used were rapid response team, rapid response system, medical emergency team, JCAHO, patient safety, synergy model, collaboration, best practice, and process improvement.

Health Care Reform and RRTs

McQuillan et al. (1998) scrutinized the deficiencies of quality in patient care for the purpose of identifying solutions. A 1993 National Confidential Enquiry into Perioperative Deaths had reported that two thirds of perioperative deaths occurred on the general wards because of cardiorespiratory complications and on the third day or later. McQuillan and colleagues conducted structured interviews with the referring and intensive care clinical teams. The study purpose was to investigate the quality of care received by 100 adult patients (50 patients from two cohorts) that had to be emergently admitted to intensive care. The interviews were followed by questionnaires that measured contributing factors and were assessed by two independent providers. The assessors agreed that 54% of the patients received suboptimal care on the general wards and that two thirds of those were admitted late to intensive care. They determined that some of the major causes of suboptimal care were lack of knowledge, lack of supervision, failure to appreciate clinical urgency, failure to seek advice, and failure of the organization. The authors gave many suggestions to improve quality of

care before admission to intensive care, including: periodically rotate nurses from high-dependency units into ICUs; educate to improve recognition of physiologic derangement of airway, breathing, and circulation; change the acute care ethos by calling in a senior member when the patients or volume of work become difficult; and recognize that everyone makes mistakes and it's usually more educational to examine errors than successes. This study provided an early movement in the evolution of quality care.

The IOM (2000) sounded the alarm in its position paper, *Crossing the Quality Chasm.* The authors declared that rapid changes were overwhelming the health care delivery system and hindering its ability to translate knowledge into practice and to apply new technology safely and appropriately. This position paper was a major impetus for the present robust movement towards safe, quality health care.

In the Australian MERIT study, Hillman et al. (2005) reported on a cluster-randomized trial of the medical emergency team (MET) system in 23 Australian hospitals. This bold study attempted to scientifically evaluate whether the MET system could reduce cardiac arrests, unplanned admissions to the intensive care units, and deaths of patients in noncritical care units. The 23 hospitals were divided into two groups. Twelve hospitals received MET training and were then directed to implement the training. The other 11 hospitals did not receive training and were asked to delay introduction of a MET system during the study period. The authors tried to collate data by correlating physiologic decline via vital signs with triggers that activated the MET. An important finding was that the majority of patients in the noncritical care units did not

receive sufficient physiological monitoring to allow for reliable triggering of a MET response. For example, a record of patients' vital signs within 15 minutes of MET activation was missing in 62% of cases. The investigators expressed that they were intrigued by the results and also stated that the study was so large as to be unwieldy, making it too difficult to maintain credible rigor. Despite study limitations in both conclusiveness and generalizability, future studies are needed to explore the stunning finding of a 30% reduction in mortality in intervention and control hospitals over the short, six month study period.

In December 2004, the IHI (2005) rallied a massive effort to launch the stalwart *100,000 Lives Campaign*. A broad coalition of partners responded to the cry that this nation's complex healthcare delivery system had many broken parts. Partners included the American Medical Association (AMA), the American Nurses Association (ANA), TJC, the Centers for Disease Control and Prevention (CDC), the Centers for Medicare & Medicaid Services (CMS), many state hospital associations, and many patient and consumer groups. They believed that if a few proven interventions were implemented on a wide scale, 100,000 deaths between January 2005 and July 2006 could be prevented. Key IHI faculty and staff frequently communicated with the Australian investigators to collaborate on the MERIT study's implications for the *100,000 Lives Campaign*. In December 2006, the IHI expanded its efforts with the *Five Million Lives Campaign*.

A moving story was told by a mother about how medical errors had caused the death of her 18 month old daughter named Josie King (Greenhouse, Kuzminsky, Martin, & Merryman, 2006). Sorrel King delivered a speech at the IHI national forum on behalf of the *100,000 Lives Campaign* in which she described the series of errors that led to her daughter's death. Ms. King advocated for one of the campaign's proposed interventions, the RRT, and specifically that parents be allowed to activate the RRT call. The Greenhouse study reported that the University of Pittsburg Medical Center (UPMC) had a well established crisis protocol: Condition A was for patients that required cardiopulmonary resuscitation (CPR); Condition C summoned a team when the patient was 'just not right'. In addition, 'Condition H(elp)' calls were added. On admission, all patients and families would receive guidelines explaining the reasons for and method to activate a 'Condition H(elp)'. This activation would summon a team consisting of an internal medicine physician, administrative coordinator, unit nursing staff member, and a patient relations coordinator. Twenty- one cases were studied, and though none of the 21 calls definitively saved a life or prevented a crisis, there had been unanimous favorable responses to this innovation by the healthcare community and by patients/families.

The 2005 gathering of experts in patient safety, acute/critical care medicine, and METs was reported on by DeVita et al. (2006). Experts convened for two days to create the consensus document, *Findings of the First Consensus Conference on METs*. They agreed that the hallmark of an in-hospital emergency is a mismatch between patient

needs and available resources. Recommendations were to empower staff at the bedside to call for help and to compare the benefits of response team models that differed in composition. They concluded that there was insufficient evidence to reach a consensus on whether to recommend that accrediting organizations and regulatory bodies require hospitals to have RRTs. They did recommend that regulatory bodies would require hospitals to track unanticipated cardiac arrests, deaths, and unplanned ICU admissions. This body of work contributed a valuable and comprehensive list of barriers to implementing a RRT. Some of the barriers that they categorized were: cultural norms related to the sanctity of the doctor-patient relationship; role hierarchies with disengagement between doctors and nurses; lack of empowerment to call the RRT among front-line (bedside) healthcare workers; uncoordinated silos of care between levels of care (general wards, ICUs, operating rooms); how to handle staffing gaps when non-dedicated RRTs are used; and variable training curricula for physicians and nurses in acute care settings.

The *International Liaison Committee on Resuscitation (ILCOR) Consensus Statement* recommended guidelines for monitoring, reporting, and conducting research on METs, CCOTs and RRTs (Peberdy et al., 2007). The purpose of the *ILCOR* statement was to identify consensus-derived key data elements and definitions and to develop a standardized template for the reporting of MET, CCOT, and RRT data. The consensus was accomplished by a task force that held a series of teleconferences from June 2005 to August 2007. The name given to this standardized template was the Utstein-style

template which was originally created in 1990 at the Utstein Abbey on the island of Mosteroy in Norway. Many other Utstein-style templates have been created since then and this template has been internationally recognized as an instrument for uniform reporting of data following trauma. The template defined core data elements that are the absolute minimum required for continuous quality improvement (CQI) and enabled the comparison of process and outcomes between institutions nationally and internationally. It has been jointly revised and refined through the collaborative efforts of international experts (Ringdal et al., 2008). The authors projected that the level of monitoring of inpatients may significantly increase, especially escalating from intermittent to continuous monitoring. This could greatly influence the activation criteria for RRTs. Increased surveillance may correlate with an increased demand on resources. The report concluded that a proportion of inpatients is cared for in areas that are inappropriate for the severity of their condition. Opportunities to optimize patient outcomes are possible by early identification of patients at risk for deterioration. The authors invited providers to use their evidence-based data to develop best clinical practices which would improve patient outcomes. *ILCOR* recommended that hospitals should implement RRTs which consist of a 'crisis detection and response trigger' mechanism, a predetermined RRT, an administrative structure to provide and organize resources, and a mechanism to evaluate crisis precipitants and promote system process improvement for the purpose of preventing future events.

A study was conducted that detailed the development, implementation, and quantitative evaluation of an RRT in a 483 bed acute care medical center (Halvorsen, Garolis, Wallace-Scroggs, Stenstrom, & Maunder, 2007). Before and after implementation of the RRT, outcome data were compiled. Examples of data collected were the number of codes per 1,000 admissions, the number of RRT events per 1,000 admissions, and the reasons for RRT activation. The distinct variability of key participants in emergency situations was identified as a problem. This finding supported the concept of the mismatch between patients' needs and available expertise being a significant contributor to adverse events. There were wide variations in nurses' level of clinical expertise, physician expertise in handling emergencies, and physician response time. During code debriefs, nurses frequently expressed a need for guidance in assessments and interventions to meet a patient's needs. The study concluded that implementation of RRTs improved patient care as measured by a decrease in number of unplanned ICU admissions and a decrease in number of codes called. Anecdotal feedback from noncritical care nursing staff included that they believed that patient care was improved. Staff also had an increased sense of security that their patients' needs could be more effectively addressed in a timely manner.

In a 16 month study of an RRT in a community hospital, data were recorded for 267 patients involved in RRT events (Thomas, Force, Rasmussen, Dodd, & Whildin, 2007). The hospital had established evidence-based criteria to facilitate activation of a RRT designed to stabilize a patient and to prevent failure to rescue. The study focused

on the challenges, solutions, and benefits of RRTs. One challenge was the differing levels of staff motivation and how they affected the way staff used their time when they were not engaged in a RRT event. Initially this brought discord to the team. On the other hand, the study concluded that the system- wide operational and financial benefits of implementing a RRT far outweighed the challenges. The benefits included improved patient safety, fewer code blues, fewer transfers to the ICU, shorter hospital stays, nurses' increased awareness of signs and symptoms of patient deterioration, physicians' increased satisfaction with nurses, increased job satisfaction among nurses, and increased patient satisfaction.

A community hospital examined the effect of a physician assistant (PA)-led RRT on major clinical outcome measures (Dacey et al., 2007). The team studied 334 RRT events that were categorized according to the primary reason for team activation: a cardiovascular or neurological change; respiratory insufficiency; or nurse concern. The authors concluded that PA-led RRTs were quantitatively effective. In the five months before the RRTs were initiated, there was an average of 7.6 cardiac arrests per 1,000 discharges per month. Over the next 13 months that figure decreased to 3.0 cardiac arrests per 1,000 discharges per month. In the year before RRTs, overall hospital mortality was 2.82% and by the end of the RRT year, it had decreased to 2.35%. The percent of unplanned ICU admissions decreased from 45% to 29%. The researchers emphasized that the PAs had specialized skills of intubation and central line insertion,

which they associated with significant decreases in cardiac arrests and unplanned ICU admissions.

An excellent book aptly entitled *Rapid Response Teams-Proven Strategies for Successful Implementation* provided an abundance of scholarly, evidence-based information and resources (Lin, 2008). The book begins with a brief history of the 1996 implementation of the Australian METs and citing of subsequent studies that fueled the evolution of MET/RRTs. Practical guidelines with exemplars will aid an organization in defining and selecting team members. Cutting edge modalities are incorporated into team development, such as, the use of simulation training to perfect skills and the use of the communication tool known as the SBAR (Situation-Background-Assessment-Recommendation). Notably, there is a chapter on TJC's National Patient Safety Goal #16, which requires hospitals to improve recognition of and response to deterioration in a patient's condition. The book provides a wealth of information and resources. A variety of hospitals contributed valuable case studies that detailed their individual organization's process of RRT implementation. RRT protocols, algorithms, and evaluation forms are beautifully and generously supplied.

Designing, Implementing, and Enhancing a Rapid Response System (Sebat, 2009) is an excellent and comprehensive resource produced by the Society of Critical Care Medicine. This source generously provides rich and detailed knowledge with extensive examples, templates, and tools. Some of the topics researched were: the physiology of shock states; early recognition and treatment of at-risk patients; key elements of RRTs

with numerous options to design teams according to the characteristics of a specific hospital site; overcoming barriers to successful RRT implementation; protocols, algorithms and order sets; 14 educational case studies; and quality assurance. The authors' premise rests upon the fact that the historical medical model during crisis has been that someone notifies the least experienced member of the team and if he/she lacks knowledge or skills, then the next least experienced provider is contacted and this continues in hierarchal fashion. This delay often leads to patient deterioration and disaster. The authors purport that between 50% and 84% of inpatient cardiac arrests are preceded by unappreciated physiological instability. The authors pointed out that without an effective early detection system, the RRT will fail. They asserted that early detection and activation of the RRT requires considerable investment of time and energy and is one of the most important steps in the education of staff nurses.

Nursing Publications Related to RRT

Grimes, Thornell, Clark, and Viney (2007) described the phenomenon of RRTs with the aim to provide CNSs with ideas to facilitate the RRT interventions. The authors disseminated much wisdom for implementing RRTs which included: the CNS works closely with administration in the initial planning; the CNS must get buy-in from providers who will be most affected; all responders must be trained to provide support and post-event education to the nurse who activates the RRT; the CNS must communicate the success stories to foster a culture of success; rescuers require

continued education; and the CNS has opportunity to significantly contribute to consensus in ethical decision- making in end-of-life issues.

Buist (2008) reported that despite IHI and others endorsements of RRTs, there has been criticism of the general body of research because discrepancies have led to inconclusive results. Downey and Haase (2008) further investigated the discrepancies by performing a retrospective analysis of two cohorts of 100 patients in a university teaching hospital with a MET system implemented in 2000. The purpose of the study was to identify barriers to timely medical interventions. Findings were that 59 (29.5%) of the 200 patients experienced a delay in MET call activation compared to the remainder, who received MET intervention within 30 minutes. The 30 day mortality rate was 37% vs. 22% for those receiving prompt care via the MET. The question generated was why did nobody call for help? Remember that this occurred at a teaching hospital with a mature MET. A survey of nursing staff revealed that when confronted with a patient who fulfilled MET activation criteria, these staff would still call the attending physician rather that activate the MET. This revelation led the author to soberly conclude that critical care physicians can better manage general ward patients in crisis than many of the ward physicians. A root cause analysis revealed "clinical futile cycles" (p. 635), which generated a lot of well-intentioned activity directed toward the patient, but little of the activity relieved the patient in crisis. Buist had two strong recommendations: decisions must be made as to who should resuscitate critically ill

hospital patients, and priority must be given to the education and training of all staff in the management of critically ill ward patients.

An exploration was done of the relationship between the nurse's education level, experience level, degree of engagement or detachment during the RRT event, and whether he/she called the RRT independently or when prompted by others (Wynn, Engelke, & Swanson, 2009). The study design was descriptive and correlational. The sample consisted of 75 staff nurses at an academic medical center who had cared for patients served by the RRT. Findings were that independent callers were five times more likely to have a BSN degree and four times more likely to have more than three years of clinical experience than those who were prompted by others to activate the RRT. The study concluded that for an RRT to be most effective, nurses must be self-directed and confident in their decision- making abilities.

A unit-based training program to improve nurses' efficiency in securing patient rescue was designed and implemented (Shapiro et al., 2009). An effective rescue process depends on nurses' early recognition of a patient in need of immediate intervention. Therefore, a four hour training program was implemented that included learning aids to improve critical thinking, communication skills, and assertiveness training. Over 100 nurses completed the program and gave excellent reviews of it. The authors emphasized that unless the nurse was successful in all three areas (critical thinking, communication, and assertiveness), it would be unlikely that the patient would be successfully rescued. The importance of this study is that the early intervention into

the deteriorating condition of a patient has been identified as a nurse-sensitive outcome that reflects the quality of hospital care.

A 'clinical triggers' program was developed as an alternative to RRTs (Moldenhauer, Sabel, Chu, & Mehler, 2009). After reviewing 'failure to rescue' cases, the investigators identified problems as either attributable to nursing failure to recognize patient deterioration or RRTs that were not consistently assessing patients at the bedside in a timely manner. Nurses were expected to become effectively familiarized with RRT call criteria, and RRT members were required to assess a patient at bedside within 15 minutes of RRT activation. Responders were not allowed to give telephone orders or enter computerized orders except for diagnostic purposes before assessing the patient at bedside. The objective was for noncritical care nurses to improve their knowledge and insight about the deteriorating patient and thus be empowered to communicate their concerns effectively. The authors concluded that the "potential benefit of an RRT may be as much a function of knowledgeable staff being able to keenly recognize the deteriorating patient and communicating effectively rather than being due to a special team becoming involved with the patient" (p. 172).

A descriptive study was performed concerning recognition of patients who required emergency assistance (Cioffi, 2000). The complexity of nurses' decision-making strategies in serious situations was found to be dependent upon past experiences combined with intuitive 'gut' feelings. Nurses often reported that they knew something was wrong with the patient before the patient exhibited physiologic

cues. The author suggested that nurses are probably recognizing patients during the compensatory phase of deterioration and these compensatory mechanisms cannot be maintained indefinitely. The patient eventually becomes compromised and then symptoms manifest that meet the criteria for calling a rapid response. Cioffi asserted that because the nurses' intuitive feelings are considered subjective, the value of these feelings is underrated by nurses and physicians and lead to disregard for patient outcomes. In sum, education programs targeted at emergency preparedness on noncritical care units need to emphasize, in detail, the decision-making process in activating an RRT. The programs must develop nurses' confidence to activate the RRT.

Depth was added to the topic of RRT implementation by exploring creative but budget-minded educational methods (Johnson, 2009). Recommendations included that programs be based upon Knowles' Adult Learning Theory and that educators need to plan activities that can be brought to the units. The nurse educator created a video in collaboration with the cast which included a critical care nurse, primary nurse, two nurse educators, respiratory therapist, and a shift coordinator. The video emphasized the importance of early detection and activation of an RRT and was made potentially more impacting by inclusion of administrators communicating their support of the project. A copy of the eight minute video was given to every clinical unit and was available for viewing 24 hours a day, seven days a week. This design allowed for viewing during short breaks and ensured that all staff received the same information. One year after the video was implemented, there was a 53% decrease in the number of cardiac

arrests outside the emergency department and the ICU. Findings were that creative but budget-minded educational methods were effective in improving quality care.

An interesting report was done on the impact of RRT events as seen through the eyes of medical-surgical nurses who are called upon to activate the RRT (Shapiro, Donaldson, & Scott, 2010). Fifty- six staff nurses were interviewed on how the RRT impacted their practice. The nurses were asked to define a successful RRT and to describe any challenges that they had encountered. They were invited to share their experiences before, during, and after activating an RRT. Findings identified general patterns such as: nurses were stressed and often frustrated before activation; nurses felt relieved and more confident during the event; and post-event reflections revealed that nurses highly valued team affirmation of their decision to activate and team educational input. The study concluded that the evaluation provided much needed insight into the effects of RRTs on nurses' work environments.

A survey was conducted of 275 nurses from a 700-bed acute care tertiary hospital in Canada (Bagshaw et al., 2010). The purpose of the study was to explore the behaviors and beliefs related to the MET system. The questionnaire had 17 Likert-scale questions and was designed by the authors to gain insight into nursing staff members' perspectives. It also included an invitation to make additional comments. Some of the broad themes explored were whether the nurses understood the benefits of a MET, to what degree they valued the MET, and whether they encountered any barriers to activating the MET. In sum, most of the nurses believed that the MET provided

important assistance with early intervention for at-risk patients. Barriers to MET activation were fear of criticism and adherence to a hierarchal medical model. Recommendation was for further research to understand nurses' perceptions of the barriers to activation and to identify solutions to this problem.

In summary, the integration of RRTs as a means for improving quality and safety in the healthcare delivery system has significantly progressed. Staff nurses are positioned to serve as major catalysts for successful RRT events. Effective education and empowerment strategies are needed to enhance nurses' abilities to serve as effective members of the interdisciplinary team to assure that patients receive the right care at the right time.

Next, the theoretical framework used to guide this study will be presented.

Theoretical Framework

The American Association of Critical Care Nurses (AACN) adopted the Synergy Model of Patient Care which was originally created by Martha Curley (Curley, 1998). Kaplow (2007) articulated Curley's original work and shared that the core concept of the Synergy Model is that the needs of patients drive the competencies of nurses. The model presents eight characteristics or needs of patients: resiliency; vulnerability; stability; complexity; resource availability; participation in care; participation in decision making; and predictability. The model also presents eight characteristics or competencies of nurses: advocacy and moral agency; caring practices; clinical inquiry; clinical judgment; collaboration; facilitator of learning; response to diversity; and systems thinking. Each of the patient characteristics is rated on a continuum consisting of levels 1, 3, and 5. For example, the patient's resiliency may be rated as: Level 1: minimally resilient; Level 3: moderately resilient; or Level 5: highly resilient. Likewise, nurse competencies such as collaboration are rated as: Level 1: willing to be taught; Level 3: seeks opportunities to be taught; or Level 5: seeks opportunities to teach, coach, and mentor and to be taught, coached, and mentored. Synergy occurs when the patient's level of need is optimally matched to the nurse's level of competency.

Arashin(2010) is an acute/critical care CNS who is involved in improving education, monitoring, and outcomes of RRTs. She reported that there are numerous clinical situations in which the advanced practice nurse (APN) or critical care nurse (CCN) can apply the Synergy Model to patient care. Arashin presented a case study of a

rapidly deteriorating patient who had been stricken with a pulmonary embolus. The Synergy Model was applied to the case by identification and matching of patient-nurse characteristics. The Synergy Model was applied to selected patient characteristics and nurse competencies. Arashin cited the Synergy Model as a very important tool for experienced APNs and CCNs to use to support staffs' continuing professional development.

Bray (2010), a CNS graduate student, applied the AACN Synergy Model to the case study of a young patient who had developed thyroid storm. The model provided the framework for nursing practice. Initially, baffling clinical data provided clues in making a differential diagnosis. The Synergy Model was applied to patient characteristics, which described the patient as vulnerable yet resilient enough to mount a response to illness. The model was utilized to further identify her as presently unstable, complex because of entanglement of several body systems, having moderate resource availability but strong family/social support, limited in her decision making ability, and moderately unpredictable. Nurse competencies were summed up as the nurses used clinical judgment to synthesize and interpret assessment results and make clinical decisions in collaboration with the multidisciplinary team.

The Synergy Model was selected as the project framework because both the Synergy Model and RRTs have been created and operationalized with the common goal of achieving optimal patient outcomes by matching patients' needs to nurse

competencies. This project was designed to explore potential improvements to the process of achieving optimal patient outcomes.

Next, study methods will be presented.

Methods

Purpose

The purpose of the project was to identify staff nurse perceived barriers and enhancers to an effective rapid response team. A secondary purpose was to obtain staff nurse suggestions for rapid response system improvement.

Research Question

What are the perceived barriers and enhancers to an effective RRT as identified by staff nurses? What are suggestions for system improvement of the RRT?

Design

A qualitative design was employed and individual semi-structured interviews were conducted with staff nurses.

Sample and Setting

The sample included nurses from select medical-surgical units who had experienced a rapid response event since the implementation of the hospital's RRT. The setting was a 359 bed community hospital. The three units were selected at the solicited suggestion of a clinical nurse specialist (CNS). Exclusion criteria were: having worked in an emergency department or a critical care unit; or a stated belief by the potential subject that he/she had not been significantly affected by the RRT events.

Instruments

Interview questions were guided by and developed from a review of the literature, in particular from recurring themes illustrated in key nursing literature

related to RRTs. The process was strongly influenced by the work of Shapiro, Donaldson, and Scott (2010). Questions were developed to elicit nurses' perceptions of barriers and enhancers to RRT events and slight modifications were made to their interview questions. An additional question was designed to garner suggestions for process improvement. The final question was designed to assess staffs' needs for further education regarding RRTs. Questions were reviewed with the author's faculty advisor, a staff nurse, the manager of the Clinical Education Department, and the Chief Nursing Officer, and were modified slightly as indicated. The interview questions are shown in the results section of this paper.

Procedures

Prior to project initiation, the proposal was approved by the Rhode Island College and institutional IRB. Gaining access was accomplished by being introduced to the nursing units and the overall staff by the CNS. To solicit interest, an IRB-approved small flyer (Appendix B), which provided an overview of the project's purpose and procedures, was posted on each unit. The investigator also solicited interest by attending staff meetings with the permission of the nurse manager. Over the course of one week, all 15 participants were recruited in response to the investigator pointing out the brief, concise details on the flyer. Interview times were scheduled at staff members' convenience. Some nurses preferred to participate that same day; in other cases, the investigator returned to the work site on the date and at the time selected by the individual participant.

Prior to the actual interview, nurses read and signed the IRB-approved consent form (Appendix C). Participants were reminded that: interviews would be tape recorded; that their participation was completely voluntary; their choice to not participate would not impact their employment in any way; and they were free to withdraw at any time. The consent included the following assurances for maintaining participants' confidentiality: only the researcher and advisor would have access to the data; tape recordings would be destroyed after transcription and in accordance with federal regulations; no identifiers were included on the audio tapes. Participants were informed that if they experienced any discomfort as a result of the interviews, they would be encouraged to discuss their thoughts and feelings and that they could self-refer to the employee assistance program if indicated.

Interviews were conducted in a private setting where participants were asked to be thoughtful in their responses. Immediately before the tape was activated, two demographics were collected: participant's educational level achieved and years of nursing experience. This was done first, in order to prevent the recording of any identifiers. The researcher prefaced the interview questions by asking the participant to take a few moments to think about an RRT event that he/she perceived as being positive or negative. Participants were requested to answer the interview questions in an individual, face-to-face, audio taped, semi-structured interview. Throughout the interview process, requests for response clarification or amplification were made.

When the interviews were completed, audiotapes and transcripts were stored in a locked file to which only the researcher had access. Interview data were stored separately from the consent forms.

Basic Analysis Plan

Data related to the two demographic questions were analyzed using frequencies and percentages. Interview tapes were transcribed verbatim. The responses for each individual question across the participants were then evaluated to identify common themes. Participants' responses were categorized by similarities, grouped, and then regrouped to provide thematic examples for each of the interview questions. Direct quotes were used to illuminate the themes and to enrich the findings.

Next, the results will be presented.

Results

The demographics collected included the level of nursing education and years of nursing experience. Ten (66%) of the participants had obtained an associate degree, three (20%) had a baccalaureate degree, and two (14%) had a diploma. Years of experience ranged from two and one-half years to 40 years.

Question 1. What prompted you to activate the RRT?

Staff were prompted to activate the RRT when their patients' physiologic vital signs fell outside the parameters set in the RRT activation criteria or when any staff member has serious concern about the patient. Examples of triggers included significantly low blood pressure, low blood glucose, rapid heart rate, low oxygen saturation levels, and loss of consciousness. Participant responses included being prompted by: a marked change in a patient's cardiovascular, respiratory, or neurologic status; having a gut feeling that something was wrong with the patient; and a patient voicing concerns.

An illustrative example of the Synergy Model's premise of attempting to match patient need to effective available resources is noted in one respondent's reason for activating the team: "The patient needed more help than I was able to give."

Question 2. Were there any challenges encountered in activating the team?

The majority of respondents had not experienced any challenges in team activation. Two respondents pointed out rare exceptions: "Once it took a while for the team to respond", which was attributed to simultaneous high demands by different units but the respondent emphasized that the outcome was not affected in that case. Another participant noted that in one event: "It took five or six phone rings instead of one or two rings for the operator to answer the emergency dedicated line." General sentiments were that staff were "impressed with such a great resource" as their RRT. Another stated, "It makes the staff very, very secure particularly if you have a patient who is becoming critical and you have a primary care physician who you're dealing with from on the phone, from his office. You just turn around and call the RRT and then you get everything done that needs to be done in a very timely fashion. So I love the RRT!"

Question 3. What made activation easier?

Nurses expressed appreciation for feeling supported and welcomed to call for help. Many of the participants pointed out that it was very stress- relieving to utilize the RRT. They believed that RRT obtained early, optimal help for their patient, thus preventing unnecessary deterioration. Staff were convinced that many Code Blue events had been avoided. One noted that "Just knowing you have it at your disposal. You can be able to just do it and not feel guilty about it because we are here for the patient and trying to get their optimal level of care. I've seen when other nurses felt

they weren't getting support from their primary care physician or the hospitalist and they felt that RR was an avenue to get a better outcome for the patient."

Question 4. Can you describe a RR event that went well? What was it about the situation that caused you to see it as a successful RR event?

The participants generally described their RR events as well-planned and distinctly organized. They expressed great satisfaction that RR events intervened before their patients deteriorated to the point of requiring Code Blue resuscitation. They were very relieved that their patient was quickly transferred to a more optimal level of care when necessary. Respondents were visibly enthused when describing the collaborative dynamics of the operation. One replied, "Everyone comes together as a team and realizes that we're here for the patient especially when the House Officer asks if there's anything else he or she could have done. For the nurses, you feel important as well because you know the patient and that's nice. It's almost like he's saying, 'This is what I've done on my part to help this patient but is there anything else anyone thinks we should do?' We're working as a team."

It is interesting to note that one of the participants mentioned that the pharmacists have been responding as part of the RRT. They arrive at bedside and quickly access the patient's medication profile so that the team knows exactly which medications the patient has received, which often has the potential to enhance the assessment and optimize the interventions.

Success was described by one nurse as when she pauses for a moment to calm and prepare the patient for the sudden arrival of a rescue team. It was rewarding to her to see the calming effect she had on the anxious patient with just a few words of preparation. Another positive statement sums it up: "I think it's a wonderful thing for the patients because many times you try to deal with doctors with back and forth phone calls and it takes too long but the team has everybody."

Question 5. Have there been any RR events that did not go well?

The general tone of response was a positive affirmation of how much the participants appreciated their RRT. The few times that things did not run smoothly are summarized as follows: First, it was reviewed as occasionally uncomfortable when more than one physician arrives. There is the potential for a little disagreement between them regarding the plan of care, about "who's running the show but that happens in an emergency." One nurse reflected on being reprimanded by a physician for calling RR and beginning CPR on a DNR patient; another reported on an unsuccessful event secondary to a non-reversible life-threatening condition. Lastly, one answered that although all events were successful, sometimes too many people were present or there was some role confusion for the staff nurse.

Question 6. What valuable assets did the team bring to the bedside?

Nurses described that the team "thinks out loud which enhances effective communication." Each discipline brings its expertise and this true collaboration has a synergistic effect. Sample responses included: "The team knows a lot of the drips and

how to mix them and titrate them right off the top of their head so it's very helpful when you're not accustomed to using all of these particular drips. So it's wonderful having that ICU nurse there"; "They brought a ventilator right to the bedside and immediately intubated the patient before immediate transfer to ICU."

Another facet discussed was that the team's presence "takes the pressure off of you as the staff nurse like you have to take over, you have to control it all. You can step back but they're going to want information from you but you're not the only one there. It feels more comfortable. Sometimes it turns out to be not a lot but they're always very happy to come." The participants overall often emphasized that they were very welcome to call the team.

Question 7. What influence has the event had on your practice?

A range of perceptions and emotions can be identified in the following statements: "When I was first involved, I thought, Oh, my God! They're going to come in and I'm going to be expected to do something but now I'm not nervous at all about calling RR. Before it was, how intense is my responsibility going to be? But now I realize it's just a big team effort."

Another stated, "It's changed the practice in the hospital. You're not on the phone every 15 or 20 minutes paging somebody to try to get them to do something. It makes it much safer for the patient. It's wonderful, especially if their primary care physician isn't easy to get in touch with."

Another positive response was "Versus the way we used to do it. It's so much better, quicker, more efficient and organized instead of 'Who do we need now?' It's efficient and it's good for the patient."

The last response was "I think as a new nurse, I was a little hesitant to call a RR, thinking, I don't want to put anyone out. I have this whole team here unnecessarily but I'm much less hesitant now because I see how beneficial it is for the patient."

Question 8. Do you have any suggestions for RR improvement?

It was noted that the events typically ended with a debriefing which served to improve the entire RR process. Debriefing is employed by many professions as a method to improve process.

One staff nurse suggested that respiratory therapists could be trained to intubate which one respondent had experienced to be advantageous at another large community hospital. It was also suggested that all nurses be ACLS certified. One nurse commented: "I would like quarterly reviews of the crash cart. I don't want to be a deer in the headlights. These peoples' lives are in your hands and when you're shown something once. To me, it's like saying, O.K. We showed you." The final suggestion was to "clean up the role confusion." Several nurses asked for clarification in regard to what the expectation was of the nurse calling the RRT. They had experiences where some ICU nurse responders offered to watch their patient while they tended to the needs of their other four patients. At other times, they were surprised to have a responder tell them that they were not there to take care of the patient for them.

An unexpected finding was how the nurses', not privy to the other interviewees' responses, voiced significant stress levels concerning neglect of their other patients in their care. In addition to the stress of their patient in crisis, there was considerable anxious concern that their "other four patients would not be taken care of." Five of the 15 nurses gave six responses to three of the interview questions which identified this specific stressor. It is worth noting that 33% of the nurses emphasized in their suggestions that the system should be improved by ensuring that their other patients' safety and well-being were being maintained. The six specific responses included:

1. "We get sick people on these units so it's good when they come. Then you know that patient is getting their care and you can watch your other sick patients which is also successful. We can't have somebody who's critical because we just can't. It's overwhelming because then you have four other patients that aren't getting their care."
2. "It helps because the extra help you need. Because we do have five patients. When you're trying to take care of one who's going bad but here you have the extra help if they decide to transfer to ICU. The ICU nurse stays with them so you can tend to your other patients."
3. "So who takes care of my other four patients while I'm in the RR?"
4. "If it's determined that a patient has to go somewhere like ICU and there's no bed available, then we have to take care of that patient until a bed is available and that can be hard when you have a 5:1 (patient: nurse) ratio. If they could

have an extra nurse able to stay with the patient so you wouldn't have that on your mind while going about the rest of your patient care."

5. "Somebody needs to pick up the slack on your other patients."
6. "Clean up the role confusion. What the expectation is of the nurse calling the RR. Do they want us to give just an overview: (like) this is the patient's situation, this is their history and this is what is what I've done? Or do they want me to stay and then if they want me to stay, who is going to care for my other patients?"

Question 9. Would you be interested in a seminar designed to optimize nurses' early recognition of patient deterioration?

There was almost unanimous enthusiasm for further education on this topic. The one exception was a nurse who stated she may be interested if the seminar was informal because "it's hard to get away" from the assignment for educational purposes. Enthusiasm was expressed as: "Absolutely!"; "Sure!"; "Very, very helpful! That would be great!" and "I most definitely would be interested in class that involved that." Their thirst for knowledge was evident and their genuine concern for their patients was evident. One response specifically pointed to the effect that knowledge and education can have on self-efficacy. "I think one of the biggest things people feel like is, Is it really a rapid response? Should I call or shouldn't I? Do I or don't I? I think that if nurses can be made to feel more comfortable in their decision making, that might be better assessment skills or just overall yourself feeling like you don't want to do the wrong

thing. Your own personal feelings about confidence. That would be a good part of an in-service." In sum, the nurses expressed a thirst for continual professional development, a desire to be competent and self-confident, and a deep desire to provide their patients with caring, safe, and quality care.

Summary and Conclusions

Statistics vary but it is generally purported that 100,000 people die in this nation each year due to medical errors (IOM, 2000). Unintended harm and unnecessary deaths are occurring at an alarming rate despite the best intentions of highly skilled providers. In response to these broken systems, the concept of the RRT has emerged and there is mounting evidence that RRTs are having a major impact on patient outcomes. RRTs are an integral part of health care reform as they attempt to match patient needs to RRT expertise. Because of the urgency and gravity of this situation, the RRT was selected as the topic for this paper. The purpose of this study was to explore the perceived barriers and enhancers to an effective RRT as identified by staff nurses and to obtain suggestions for system improvement of the RRT. The design was guided by the Synergy Model (Curley, 1998).

Individual interviews were conducted to identify staff nurses' perceived barriers and enhancers to an effective RRT. An additional intent was to obtain their suggestions for system improvement. It was observed that the participants took pride in their contribution to the healthcare delivery system. Each individual's depth of caring and compassion resonated deeply to provide a refreshing optimism in the midst of a system affected by the global uncertainty of the times. One response in particular captured the essence of the Synergy Model. When asked: What prompted you to activate the RRT?, the participant responded "The patient needed more help than I was able to give."

Participants' overall appreciation of their RRT was summed up in one of the responses: "I love the RRT!"

Some of the literature reviewed pointed to the traditional medical hierarchy as a significant barrier to RRT effectiveness. For example, it was identified that ineffective providers were attempting to rescue deteriorating patients instead of utilizing the RRT. Also discussed was the issue of the staff nurses who had been discouraged to activate the team, leaving them feeling disempowered and fearful of criticism. This project's participants repeatedly emphasized that they were graciously encouraged to call the team and meaningfully affirmed in their decision to activate it. Some of the participants remarked how their confidence had increased with each successive event experienced, which is an example of the value of pattern recognition in developing self-confidence. The interviewees touted team collaboration as having a significantly positive effect on nurse satisfaction. One commented: "It takes the pressure off of you as the staff nurse like you have to take over, you have to control it all."

One unexpected finding not identified in the literature was that the questions generated responses showing staff nurses identified great concern for their other, more stable patients who were not involved in the RRT event. Thirty-three percent of the participants identified the specific stressor of their "other four patients" potentially being neglected while the nurse was engaged in the RRT event. They voiced considerable concern and generally suggested that the system should be improved by

ensuring that their other patients' safety and well-being were being maintained. Overall, nurses' responses affirmed the value and benefits of the RRT.

The *American Association Of Critical-Care Nurses (2005)* published standards for establishing and sustaining healthy work environments which include: skilled communication-nurses must be proficient in communication; true collaboration-nurses must be relentless in pursuing and fostering true collaboration; effective decision making-nurses must be valued partners in making policy, directing and evaluating clinical care; appropriate staffing-staffing must ensure the effective match between patient needs and nurse competencies; meaningful recognition-nurses must be recognized and must recognize others for the value each brings to the work of the organization; and authentic leadership-nurse leaders must fully embrace the imperative of a healthy work environment, authentically live it and engage others in its' achievement. The interview responses provide ample descriptions of a healthy work environment in action.

Limitations of the study included that there was only one male among the 15 participants and all participants were Caucasian. Replication with a more diverse sample would be beneficial. All preferred to be interviewed on site and on work break, and their self-imposed time constraints may have affected the fullness of their responses and this researcher's ability to probe more fully than what occurred. In hindsight, additional interview questions might have been added such as: "Have you

received RR education here and if so, what did it include?" and "Do you feel that you have lost any of your clinical skills because of your reliance on the RRT?"

In summary, findings from this study may potentially enhance this site's RRT as well as understanding nurses' perceptions of RRTs overall. The early intervention into the deteriorating condition of a patient has been clearly identified as a nurse-sensitive outcome that reflects the reputation of an institution as well as the quality of hospital care that is provided. This project supports the premise that "Every patient has the right to the right care at the right time." The participants' responses reflected that patient safety was at the core of their decision making and interventions. IHI's aims of timely and effective interventions were exemplified and nurses were highly satisfied with the process.

Recommendations and Implications

An unexpected finding from this project was the nurses' concern about patients under their care not involved in the RRT event. Those interviewed exhibited heightened emotions especially regarding the burden of responsibility and fear of neglecting their other patients during the RR crisis. This is understandable because professional expectations are that these nurses must be adept at using sound clinical judgment in their decision making. Nurses must frequently prioritize competing patient, family, and system needs. They must be vigilant in maintaining safety and in rendering quality care to all of the patients that have been entrusted to their care. One recommendation would be to gather focus groups to further investigate this problem in a systematic way in order to identify potential solutions. Possible solutions may include that the charge nurse could round on affected patients to assess their needs and/or responsibilities may be temporarily or permanently reassigned to other staff when indicated.

Not only are CNSs uniquely qualified to provide leadership in the development and implementation of RRTs but their trans-system role makes them invaluable in the monitoring of RRT outcomes. RRT implementation typically demands a significant culture change. Collaborative, interdisciplinary teams must be thoughtfully planned and organized in accordance with evidence-based approaches and standards of care. Jenkins and Lindsey (2010) advised that retrospective studies within an organization be done in order to tailor the RRT design to that specific site. Interdisciplinary team composition, activation criteria, and protocols or algorithms would provide direction for

the RRT in responding to various clinical scenarios. Recommendations were for the CNS to engage in the numerous aspects of RRT development including: establishing an evidence-based platform; collaborating with members of the interdisciplinary team in the design of the RRT; eliciting support of the chief medical and nursing administrators; teaching the staff nurses how to recognize patient deterioration as RRT activation criteria; developing protocols, assessment tools, and evaluation measures; creating documentation templates; teaching standardized role expectations to multidisciplinary RRT responders; evaluate the readiness of responders; and identifying and mobilizing system resources. The aim of significantly reducing the rate of failure to rescue can be invaluably impacted by the full utilization of the CNS role.

As co-chair of the Veterans' Administration Rapid Response System Initiative, Church (2010) emphasized the vital influence of the CNS in healthcare innovations that are significantly impacting successful outcomes. The author noted that the general body of literature identifies the main contributors to failure to rescue (FTR), including failure to communicate, failure to plan, and failure to identify cardinal signs of patient deterioration. Church noted that the evaluation of the CNS-led rapid response program was measured by reduction of FTR incidents. Three months after it was implemented, the baseline of six to eight FTRs per month decreased to one per month. This success continued to be sustained with only one incident within the next six months. The CNS was instrumental in this facility being nationally recognized as a best practice example for initiation of a successful rapid response program.

The CNS is strategically positioned to facilitate the continuing improvement of RRTs. This is made possible by the wide-ranging abilities inherent in the role which generate significant contributions to this outcomes-driven initiative. The CNS role in the rapid response process would include: the identifying of best practice through literature review and professional online forums; conducting an educational needs assessment of the bedside nurses; understanding variation in outcomes by working with interdisciplinary staff to identify barriers to the RRT process; helping bedside nurses improve their assessment skills that identify patient deterioration and encouraging them to follow standardized clinical trigger criteria for RRT activation; analyzing all RRT event data and identifying missed opportunities; improving interdisciplinary and inter-unit communication by disseminating results in a positive manner; assessing all system processes and options in order to provide staff with round-the-clock access to resources available to intervene when patient deterioration occurred; implementing staff education that would reinforce learning which included mock scenarios; continually evaluating the process and making appropriate changes; and surveying for staff satisfaction and soliciting staff for suggestions for process improvement.

Many CNSs have been involved in the design and implementation of RRTs. It would be timely for a much greater demand to be put on the valuable resources inherent in the CNS role. The CNS has input in every phase of the RRT, from its creative inception to its measured impact on outcomes. The CNS uniquely improves patient outcomes by collaborating across the three spheres: patients, nursing practice, and

systems of care. When effective systems thinking is in operation, the CNS integrates into networks of inter-professional colleagues often resulting in gaining new perspectives, enhanced professional development, access to resources, and synergistic relationships.

The CNS is in an impressively strategic role and is able to nurture the culture change necessary to fulfill the ongoing demands of healthcare reform. Because nurses serve on the front lines of patient safety and must be able to recognize patient deterioration, it is imperative that they be comfortable in their clinical judgment and decision- making. A strong CNS is particularly positioned to be both a role model and educator who handily incorporates evidence-based research and assists staff nurses to translate the research into clinical practice. CNSs can support the development of nursing excellence by encouraging a culture that eagerly utilizes the RRT, involves team members in the RRT debriefing process, and systematically provides outcome data within and across units. Debriefing data collected by the CNS can further enhance the organizational culture by supplementing the data with noteworthy success stories which will further encourage staff to continue quality and safety improvement.

Further study related to RRTs is indicated. Possible concepts for future study include investigating such questions as: What is the impact of RRT education on staff nurse confidence and competence; What is the effect of RRT process improvement on patient outcomes; and How do effective RRTs affect nurse recruitment and retention?

CNSs are expected to promote the role and scope of CNS practice to the public, other health care providers, legislators, and to regulatory bodies. Being a member or leader within a professional nursing organization has the potential to change policy and laws that will benefit patients, nurses, and systems. State level political involvement has the potential to elicit positive legislative response to issues affecting nursing practice. A CNS can be a powerful and effective liaison between families, health care providers, and systems. A CNS can maximize the role by networking with others through virtual on-line gatherings and utilizing available excellent resources. The IHI provides access to white papers and initiative reports, including Transforming Care at the Bedside; The National Quality Forum (NQF) publishes consensus reports, and the National Database of Nursing Quality Indicators centralizes a wealth of relevant data. In addition, the National Association of Clinical Nurse Specialists (NACNS) is able to guide and support CNS professional development. Armed with these resources, the CNS will be better able to keep a finger on the pulse of legislative, regulatory, and practice issues. Assimilating global and regional trends will enable the CNS to develop, revise, and maintain system/organizational policies in alignment with state, regional, and national regulatory bodies. The CNS has a critical role in influencing state and national policy development. Being an effective and creative change agent has been greatly enhanced by the myriad of media, networks, and technologies that are available as resources.

Advanced practice registered nurses (APRNs) may all be patient/family advocates but the CNS is especially able to advocate on behalf of nurses. The CNS is able to guide

and support nurses individually or at a unit or systems level and represents a voice for nurses, advocating on their behalf at state and national legislative levels. Being involved in policy-making is being done within the nursing domain and within federal regulatory bodies. The CNS may whisper comfort to a dying patient and may speak boldly at a governmental forum. The possibilities are unlimited for the meaningful and lasting contributions of CNSs.

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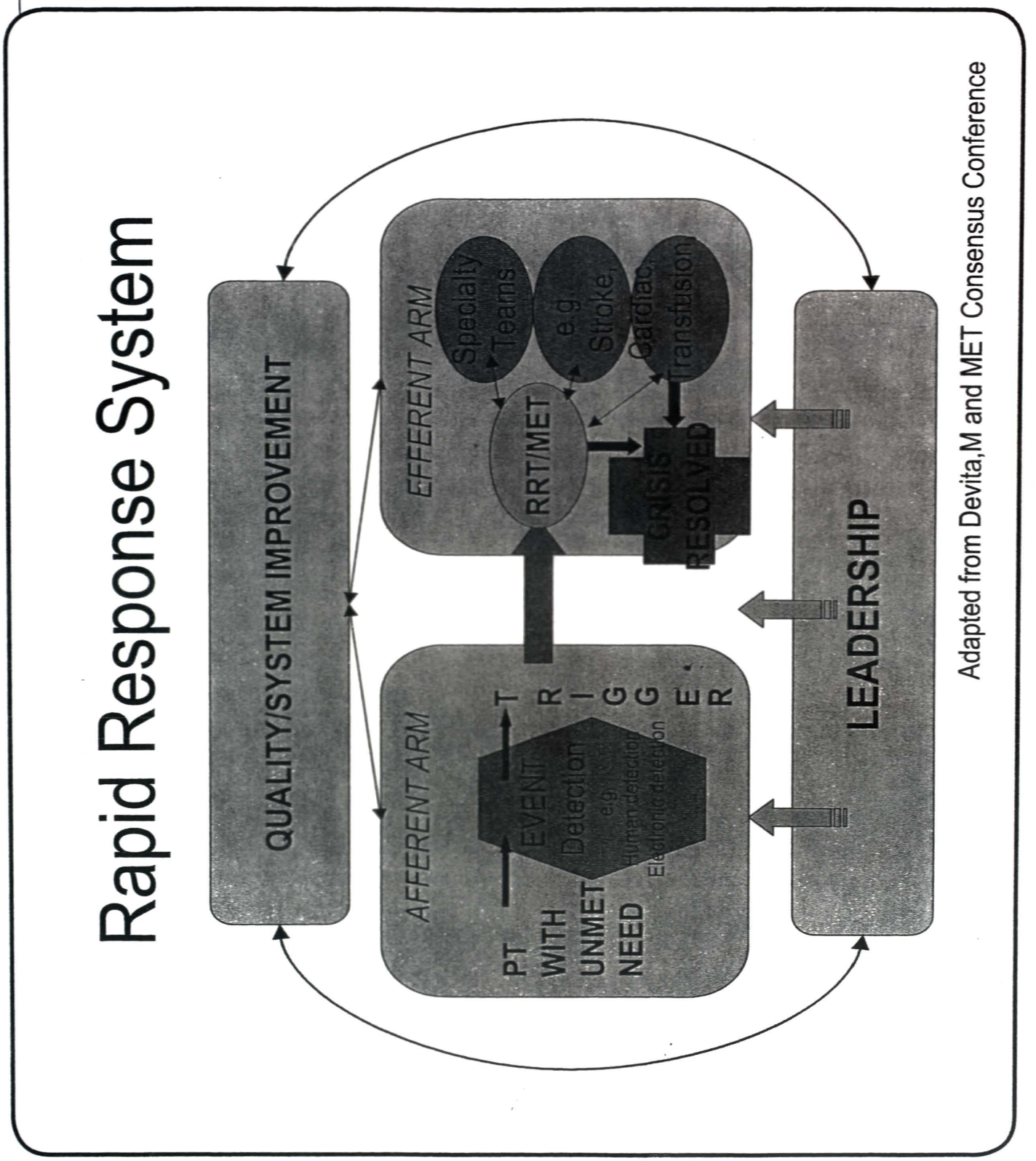
Appendix A

FIGURE 1.2

RAPID RESPONSE SYSTEM



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Appendix B

INSIDE the MIND

of a RAPID RESPONSE ACTIVATOR

A RIC Master's student has invited you to share your rapid response experiences, insights, and suggestions.

HOW? Brief interview scheduled at your convenience

WHERE? Here at Kent

WHEN? Anytime before November 30, 2010

WHAT? 9 questions with no right or wrong answers

WHY? You may benefit from an enriched perspective.

You may contribute to understanding more about Kent's Rapid Response System.

You will assist the completion of a MSN project.

Your participation will be so appreciated!

Contact: Gail Mosher at 848-5469 or gmosher_7894@ric.edu

Appendix C

Inside the Mind of a Rapid Response Activator Consent Form

You are invited to be in a research study of nurses' perceptions of rapid response events. You were selected as a possible participant because you are a registered nurse employed on med-surg unit 2 West, 3 South, or 4 Northwest. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Gail Mosher, a graduate nursing student at Rhode Island College

Background Information:

The purpose of this study is to identify staff nurse perceived barriers and enhancers to an effective rapid response system. A secondary purpose is to obtain staff nurse suggestions for system improvement.
The research question is: What are the perceived barriers and enhancers to an effective rapid response system as identified by staff nurses? A secondary question is: What suggestions for system improvement will be identified by staff nurses?

Procedures:

If you agree to be in this study, we would ask you to do the following things: Schedule an appointment to be privately interviewed at your convenience and have your interview audio-taped with privacy, confidentiality, and anonymity assured.

Risks and Benefits of Being in the Study:

The study has the risk of eliciting sensitive emotions while recalling your rapid response experience. If this occurs, you may immediately stop participation. If you desire, you can contact Kent's Employee Assistance Program to talk with someone about these emotions.

There are no direct benefits to you for participating in this study.

_____ Initial here to indicate that you have read and understood this page.

RIC Institutional Review Board
Approval # 1011-04
Expiration Date: 9/16/2011

Confidentiality:

A private area at Kent Hospital will be selected for reviewing the consent form. The audio-tapes will be kept locked and in possession of the researcher. The tapes will be destroyed after being transcribed and in accordance with federal regulations. No identifiers will be used for the tapes. Only the researcher and advisors will have access to the data.

Voluntary Nature of the Study:

Your decision whether or not to participate will not affect your current or future relations with the Rhode Island College or Kent Hospital. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

Contacts and Questions:

The researcher conducting this study is Gail Mosher. You may ask any questions you have now. If you have questions later, you may contact her by phone at 401-848-5469. Her faculty advisor, Cynthia Padula may be contacted at 401-456-9720.

If you would like to talk to someone other than the researcher about (1) your rights as a research participant, (2) research-related injuries or problems, or (3) other issues/concerns you have about your participation in this study, please contact the Chair of the Institutional Review Board at IRB@ric.edu, or by phone (401-456-8598), or by writing, Dr. Christine Marco, Chair IRB; c/o Department of Psychology; Horace Mann Hall 311; Rhode Island College; 600 Mount Pleasant Avenue; Providence, RI 02908.

You will be given a copy of this form to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study. I am over 18 years of age.

I ___do ___do not agree to be audiotaped for this study.

Signature:_____ Date: _____

Signature of Parent or Guardian:_____ Date: _____

Signature of Investigator:_____ Date: _____

RIC Institutional Review Board
Approval # 1011-04
Expiration Date: 9/16/2011