

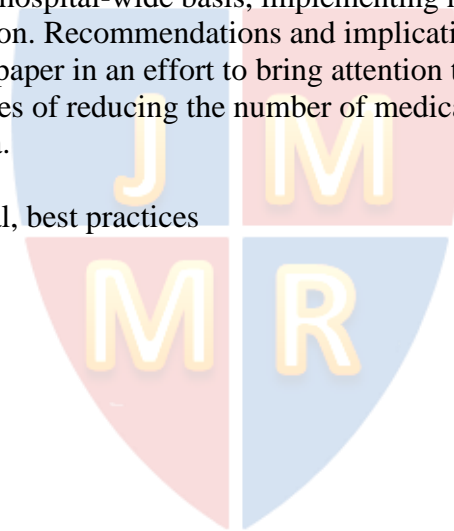
## **An empirical investigation: Best practices within error reporting systems in acute care hospitals in Pennsylvania**

Monica L. Law  
Marywood University

### **ABSTRACT**

The researcher investigated best practices utilized by management within Pennsylvania acute care hospitals with respect to medical error reporting systems. Structured interview questions provided relevant data in relation to how healthcare administrators could structure the workplace environment in hopes to prevent the number of medical errors that occur in acute care hospitals in Pennsylvania. Best practices include employing full-time patient safety officers, disconnecting employee and punishment, partnering with outside organizations, addressing near misses, implementing unit patient safety officers, addressing standardized procedures, daily chart reviews, addressing errors on hospital-wide basis, implementing mentoring programs, and making staff part of the solution. Recommendations and implications for implementing best practices are provided in this paper in an effort to bring attention to actions that may be taken by hospital administrators in hopes of reducing the number of medical errors that occur within acute care hospitals in Pennsylvania.

Keywords: acute care, hospital, best practices



Copyright statement: Authors retain the copyright to the manuscripts published in AABRI journals. Please see the AABRI Copyright Policy at <http://www.aabri.com/copyright.html>.

## LITERATURE REVIEW

A groundbreaking report distributed by The Institute for Medicine, has heightened awareness to the number of errors that occur within United States hospitals. This report states that somewhere between 44,000 to 98,000 people die from medical errors each year (Corrigan, Donaldson, & Kohn, 2000). The occurrence of medical errors have been receiving substantial attention and it is hoped that the medical community, government, and healthcare agencies will work together in an attempt to find solutions that will aid in the reduction of preventable medical errors that occur each year within healthcare facilities.

The Institute of Medicine has defined an error as “the failure of a planned action to be completed as intended or the use of wrong plan to achieve an aim” (Corrigan, Donaldson, & Kohn, 2000, p. 28). More specifically, an error can be construed as a misdiagnosis, a wrong procedure performed, a medication dosing mistake, faulty equipment, and a host of other unintended acts that result in failure.

System failures have been identified as a major contributor to the occurrence of medical errors. Subsequently, research has changed its focus from individuals to systems, specifically, improving the systems to reduce errors (Adams, Jaffe, & Rosenbloom, 2001). In addition, Cooper (2001) states “even though effective remedies do exist, much research is needed in the area of medical errors in order to learn about the underlying causes of the errors and system failures” (p. 4).

Preventing medical errors is of utmost concern to providers of health care. The specific failures that occur are also of importance because in order to prevent errors, one must first know how the error occurred, and where the system failed. It becomes critical to assess the systems in place in order to prevent the occurrence of medical errors.

Currently, there are many efforts made within systems and processes to prevent the occurrence of errors. Empowering patients, team-building programs, checklists for standardization, and cultivating an environment of safety are examples of ways hospitals utilize initiatives in an attempt to prevent errors (Mattox, 2012.) However, it is relevant to note that Mattox (2012) goes on to say that the act of critical thinking, in regard to the actual process of problem solving, rather than the problem itself, is an important aspect to the reduction of errors. Health care providers must first think about, and assess, the process and systems in order to build tools based on preventing errors.

Montesi, G & Lechi, A. (2009) add that error prevention can be planned by both retroactive and proactive tools. They address the process of an audit as a means to help prevent medical errors. In this audit process, initiatives are compared to reference standards and the corrective actions put in place are aimed to improve the performance of individuals and systems. Systems must be assessed in order to evaluate potential breakdowns. Wong, Levinson, & Shojania (2012) go on to say that certification exams before and after training initiatives must target competencies that instill fundamental collaborative, and open-minded behaviors. This is an assessment method that is aimed to improve not only the quality of education, but aid in the prevention of errors.

Rossett (1995) described needs assessment as an initial inquiry of information about situation. Rossett (1995) incorporated the work of Bandura (1977) into a system that recognizes four kinds of causes: First, lack of knowledge or skills. In essence, can the performer do the task? Second, a flawed environment. Does the environment support the task? Third, improper incentives. What are the consequences of doing the job badly or not doing it at all? And fourth,

unmotivated employees. What is their value toward the task? What is the internal state of the individuals involved?

## **PURPOSE**

The ultimate goal of this study was to help providers of healthcare within Pennsylvania acute care hospitals find solutions to the ever-present problem of the occurrence of medical errors. This study sought to provide new knowledge in regard to where one particular system may be breaking down, specifically the error reporting system. The purpose of this study was twofold; 1) to develop two structured interview questionnaires, and 2) to conduct structured interviews as a means to collect data that focused on the occurrence of medical errors; specifically through assessing the error reporting systems within a sample of twenty-two Pennsylvania acute care hospitals.

## **RESEARCH QUESTION**

Within the sampled twenty-two Pennsylvania acute care hospital error reporting systems, are procedures in place in order to prevent reoccurrence of medical errors?

Using a qualitative methodology, perceptions of patient safety officers and registered nurses within twenty-two acute care hospitals were analyzed. Interviews averaged forty-three minutes in length. This research question was posed in an effort to find an answer to what exists within the error reporting systems following the correction of an error, focusing specifically on the reoccurrence, or prevention of errors.

## **FINDINGS**

In analyzing data from this research question, it was found that the majority of both the patient safety officers and the nurses felt that procedures are in place in order to prevent the reoccurrence of medical errors. Examining the specific procedures brought about another finding, that of best practices. Best practices can be defined as prevention methods that may go above and beyond what is legally required, or that focus on proactive, versus reactive, measures. The best practices that were found are described in the recommendation section of this paper.

## **RECOMMENDATIONS**

Based upon the findings, the following recommendations are made for those hospital administrators that may be looking to add to their procedural guidelines in order to prevent the reoccurrence of medical errors.

## **BEST PRACTICES FOUND WITHIN ERROR REPORTING SYSTEMS**

There were best practices found within error reporting systems of assessed organizations. It was the intent of the researcher to highlight exemplar practices, giving practitioners reading this study impetus for future error reporting assessment, with the goal being to promote the reporting and reduction of errors. Best practices are defined as procedures that go beyond the legal guidelines, those that are implemented with pure intent of delivering quality patient care

and reducing the occurrence of medical errors.

Ten themes are summarized below.

### **Full-time Patient Safety Officer**

Thirty percent of the patient safety officers that were interviewed were considered full-time in that position. Meaning, they did not have duties outside the realm of focusing on patient safety issues. Seventy percent of those interviewed were assigned the task of acting as the hospitals patient safety officer. This responsibility was added in addition to primary duties already held by the employee. The assumption cannot be made that organizations employing a full-time patient safety officer have lower occurrence of errors, but it can be stated that the overwhelming majority of best practices found in this study were within the organizations that did in fact employ a full-time patient safety officer.

### **Disconnecting the Patient Safety Officer and Punishment**

One patient safety officer stated, “I do not decide upon any corrective actions that will occur. It is known that staff members report errors and they go to the officer. At that point, if the officer decides upon a corrective action, she may not get too many future reports. The corrective action must come from the unit supervisor. This keeps a disconnect between punishment and the patient safety officer. This helps staff feel comfortable reporting errors to me.”

### **Partnering with an Outside Organization**

Three patient safety officers explained that, in an effort to reduce errors, they have partnered with outside organizations. The outside organizations are known for quality improvement initiatives and have agreed to enter into agreements with the hospitals with the goal of helping the hospital to improve upon the delivery of care. The patient safety officers stated that they give the outside organization quarterly error data; it is analyzed, compared on a national level, and returned to them with recommendations on how they may be able to improve. Respondents stated that they have learned, and improved, in many ways since partnering with an outside entity, one that may not be directly related to the field of medicine but is dedicated to rendering consistent quality service.

One respondent stated, “Manufacturing has come a lot further ahead of healthcare in regard to quality assurance. The manufacturing industry has many great examples of quality initiatives, and implementing standards whereas healthcare is lax in standards. We could benefit from a quality assurance effort if it could be packaged up and sent to us, especially if it were cost effective and upper management was committed to it. For now, we use them as a guide, someone to help us improve without actually implementing the entire initiative.

### **Near Misses**

In the researcher's opinion, one of the most beneficial best practices found was that of the reporting of near misses. Very few respondents stated that reporting near misses were a part of the error reporting system protocol. However, those that did stated, “by focusing on events

that have the potential to become errors in the future, before they actually harm a patient, are the best learning opportunities we have.” It cannot be assumed that hospitals reporting near misses have lower occurrences of errors but the rationale for reporting near misses can be made. Again, providers of healthcare may want to look to other industries that have been successful in an endeavor such as this, especially the aviation industry.

### **Unit Patient Safety Officers**

One respondent stated that “in addition to the hospital-wide patient safety officer, each and every unit in the hospital has their own patient safety officer. Every quarter, the safety officers from each unit, along with the hospitals patient safety officer, get together and discuss errors that have been made within each unit. The errors are discussed and follow-up actions are arranged if needed.”

### **Standardized Procedures**

One respondent stated, “The same procedures are always followed, no matter what type and severity of the error. We feel that each error that is made has the potential for harm, and we treat all error the same, no matter how big or small.”

### **Daily Chart Reviews**

One respondent stated, “the night nurse goes over every patients chart, every day. She is looking for potential errors that may have occurred during the past 24 hours. We are too busy during the day to do this. Many errors are caught by the night nurse. This is part of our procedure.”

### **Think About Errors on a Hospital-Wide Basis**

One respondent stated, “We look at errors on a hospital-wide basis. We look at an error that was made on one unit but think; could this error be made somewhere else? If so, we disseminate the information to the potentially affected units so that they may be aware of the potential problem.”

In addition, one respondent stated, “if there is a particular problem, let's say something that can happen in medical/surgical but the patient doesn't stay in medical/surgical; then the personnel in the medical surgical unit are asked to develop a competency form to help other units. For example; after surgery there is the potential for something called compartment syndrome. This is the loss of circulation and can be very dangerous. We in the medical/surgical unit know how to address this problem if it arises, and we know what signs to look for. Essentially, if the patient were to stay with us, we could keep a watch on him or her. But, many times the patient leaves our unit and other nurses do not have the same training and do not know the signs to look for. So, we have been asked to develop a competency check sheet for other units to use. These check sheets are developed in areas where we have seen many errors occur, or in high risk areas.”

## **Mentoring**

One respondent stated, “We have a mentor program. For example: if a nurse has made an error and it's her first year, then it's not the biggest deal and no corrective actions may be taken. If a nurse has made small errors throughout the year then she may be asked to do some re-education in the areas where she appears to be deficient. If a nurse continues to make errors, and is always in trouble, she will be asked to go back into orientation status and a seasoned nurse will be with her at all times. She won't be able to render patient care on her own, not until she has worked with her mentor for a designated period of time and has proven competency.”

## **Making Staff Part of the Solution**

One respondent stated, “Errors and corrective actions are made visible through us being part of the solution. Staff members are asked to be part of a committee that decides upon solutions to problems. Once problems are identified, a committee is developed to work on the solution and disseminate information to other units. This is a proactive approach to problems as we don't necessarily wait until so many errors occur before we look at them.” This may aid in attaining employee buy-in, an important aspect of any change effort. Or, if no change effort is needed, by including the front-line employees in the solution process may help them feel loyalty, pride, and dedication to their work.

## **SUMMARY**

The research question was aimed at finding if procedures were in place to prevent errors. In that process, various best practices were found. Even though medical errors are stated as a leading cause of death in the United States, the research participants in this study seemed dedicated to providing top quality patient care. The researcher perceived genuine feelings of desire to provide patients with superb care. This leads the researcher to believe that the focus of current literature, stating that “systems fail the healthcare worker” is not only true, but the key in finding a solution to reduce the occurrence of medical errors.

Hospital administrators may wish to explore various best practice initiatives in order to ensure a proactive, versus reactive, approach to medical error prevention. The researcher would hope to see additional research conducted that focuses on assessing best practices in acute care hospitals in an attempt to strengthen what is already being done in hospitals to prevent the occurrence of medical errors.

## **REFERENCES**

- Adams, J., Jaffe, W., & Rosenbloom, M. (2001). Patient care efficiency and medical error reduction using pda-based medical information. *Academic Emergency Medicine*, 8(5), 587-599.
- Argyris, C. & Schon, D. (1997). *Organizational Learning II*. Reading, MA: Addison Wesley.
- Babbie, E. (1998). *The practice of social research* (8<sup>th</sup> ed.). Belmont, CA: Wadsworth.
- Cooper, J. B. (2001). *Current research on patient safety in the United States*. Chicago: National Patient Safety Foundation.

- Corrigan, J. M., Donaldson, M. S., & Kohn, L. T. (2000). *To err is human: Building a safer health system*. Washington DC: National Academy Press.
- Henneman, E.A., Gawlinski, A., & Giuliano, K.K. (2012). *Surveillance: a strategy for improving patient safety in acute care and critical care units*. *Critical Care Nurse* 32(2). 9-18.
- Horst, M. A. (2000). Organizational expertise research methodology for investigation of customer service performance and competencies in physician practices (Doctoral dissertation, The Pennsylvania State University, 2000). *Dissertation Abstracts International*, 61, 4643.
- Isaac, S., & Michael, W. B. (1997). *Handbook in research and evaluation*. San Diego, CA: Educational and Industrial Testing Services.
- Jonassen, D. H., Tessmer, M., & Hannum, W. H. (1999). *Task analysis methods for instructional design*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Mattox, E.A. (2012). *Strategies for improving patient safety: Linking task type to error type*. *Critical Care Nurse*. 32(1).
- Montesi, G. & Lechi, A. (2009). *Prevention of medical errors: detection and audit*. *British Journal of Clinical Pharmacology*. 67(6).
- MacReady, N. (2000). Second stories, sharp ends: Dissecting medical errors. *The Lancet*, 355(9208), 994. Retrieved May 24, 2001, from <http://pdf.thelancet.com/pdftownload?uid=llan.355.9208.news.1895.1&x=x.pdf>
- Maxwell, J. A. (1996). *Qualitative research design*. Thousand Oaks, CA: Sage.
- Morgan, G. (1989). *Creative organization theory*. Newbury Park, CA: Sage.
- Morgan, G. (1997). *Images of organizations*. Thousand Oaks, CA: Sage.
- Narayanan, V. K., & Nath, R. (1993). *Organization theory: A strategic approach*. Boston: Irwin.
- Noe, R. (2002). *Employee training and development*. McGraw-Hill.
- O'Leary, D. S. (2000, February). Statement of the Joint Commission on Accreditation of Healthcare Organization. *Statement presented at the United States Senate subcommittee on labor, health and human services, and education of the Senate committee on appropriations*, Washington DC: Joint Commission of Accreditation of Healthcare Organizations.
- O'Leary, D. S. (2000). Accreditation's role in reducing medical errors. *Joint Commission on Accreditation of Healthcare Organizations*. Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations.
- Pate, B., & Stajer, R. (2001). The diagnosis and treatment of blame. *Journal for Healthcare Quality*, 23(1) 4-8.

Patton, M. (1997). *Understanding research methods: An overview of the essentials*. Los Angeles: Pzrczak.

Patton, M. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, 34(5), 1-15.

Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

Rossett, A. (1995). Needs Assessment. In Anglin, G. J. (Ed). *Instructional technology: Past, present, and future*, p.183-196. Englewood, CO: Libraries Unlimited, Inc.

Rothwell, W. J. (2002). *The workplace learner*. New York: AMACOM.

Rothwell, W. J. (1996). *Beyond training and development*. New York: AMACOM.

Wong, B.M., Levinson, W., & Shojania, K.G. (2012). *Quality improvement in medical education: current state and future directions*. *Medical Education*. 46(1). 107-119.

