12-18-2021

An evidence-based project: Exploring nurse manager communication competencies and skill development

Micaela Ross
James Madison University

An Evidence-Based Project:

Exploring Nurse Manager Communication Competencies and Skill Development

Micaela Ross

A study project submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

Doctor of Nursing Practice

School of Nursing

December 2021

_____

_____

FACULTY COMMITTEE:

Committee Chair: Dr. Jeannie Corey DNP, RN, NEA-BC

Committee Member: Dr. Monty Gross

DEDICATION

This work is dedicated to my husband, Phillip, and son Donald, who have been a constant source of support and encouragement throughout my lifelong educational endeavors and achieving this post-graduate work.

To both, I owe a great deal of gratitude and thanks.

ACKNOWLEDGEMENT

Table of Contents

List of Tables

Abstract

Evidence supports effective communication skills as essential for patient safety and organizational success. Evidence is also clear regarding ineffective communication and its negative impact. The purpose of this project was to determine an area of communication skill development needed among nurse managers of the participating island hospital and support positive change in knowledge, understanding, and ability to use effective communication skills. The aim was to improve communication skills among these nurse managers. The objectives were to determine a specific skill need, provide a focused educational intervention, and evaluate skill improvement. Pre-intervention survey results revealed a self-identified priority of effective communication skills that matched nursing leadership's skill development needs and priorities. A synchronous, virtual, evidence-based educational session (adapted from *TeamSTEPPS®* educational materials) was delivered to the nurse managers with the goal to improve understanding and the ability to use feedback skills in communication. The post-intervention survey results showed all participants self-reported improved levels of knowledge and understanding and ability to use feedback skills in communication. Limitations of low participation are presumed a result of Covid working conditions and staff shortage. Educational interventions focused on meeting the needs of nurse manager skill development have a direct impact for nursing in improving patient and organizational outcomes.

Keywords: nurse manager communication skills, interdisciplinary nurse communication, confidence competence communication, communication feedback skills

Background and Significance

In 2020, a collaborative agreement was made between an east coast university school of nursing and a remote island hospital to explore scholarly projects for graduate nursing students and provide educational opportunities for the island hospital nurses. The senior nursing leadership of the island hospital indicated the potential need for communication skill development for its nurse managers. This project focused on exploring communication competencies and skill development of the nurse managers at the participating island hospital as a significant step towards improving quality patient outcomes and organizational processes.

There was much discussion regarding a multitude of directions where communication skill development could be explored. The participating island hospital has a diverse multi-cultural staff. It was suggested that cultural diversity, including nurse training, years in nursing, and experience as nurse managers, may contribute to differences in communication skills. Anecdotal evidence, as indicated through observation of the nurse managers by the Senior Nursing Leadership, indicated the potential for development in the area of relational communication skills and a need for more effective communication.

According to Dingley (2008), the nurse managers' ability to communicate effectively is critical to achieving positive patient and organizational outcomes. Likewise, ineffective communication has a negative impact on the operational system in healthcare and is reflected in the ability to meet goal objectives and ultimately impact patient care. According to Hughes (2008), "effective and frequent communication" among leadership

plays a role in the effectiveness of nurses and team participation as well as working towards shared governance (Ch.2).

The participating island hospital is preparing for International Joint Commission accreditation. Improving the communication skills of the nurse managers is a means to improving quality and safety protocols and standards of care. The Institute of Medicine (IOM) and the National Research Council (NRC) (1999) reported communication failures as an attributable condition to medical errors in its report, "*To Err is Human: Building a Safer Health System.*" In Donaldson's (2008) overview of the 1999 IOM report "*An overview of to err is human: Re-emphasizing the message of patient safety,"* he indicated communicating clearly, requesting, and giving feedback provides opportunity for the prevention of errors. Also, in 2008, Hughes (2008) addresses the elements of human performance and skill-based errors when seeking to provide for patient safety and best outcomes.

Also, the Controlled Risk Insurance Company (CRICO) (2015) is a major leader in medical professional liability whose mission is to safeguard the assets and reputations of their insured organizations, and clinicians provided a 2015 analysis using their comparative benchmarking system. They reported; "communication failures resulted in 30% of 23,658 malpractice cases (p. 4). It also indicated communication failures in 38% of all general medical cases, 34% obstetric cases, 32% nursing cases, and 26% surgical cases out of 2,488 cases (p. 6). According to Riah (n.d.), the CRICO malpractice data regarding communication errors is everyone's problem. Every healthcare organization also should work to reduce these errors (Riah, n.d.).

According to Choi et al. (2018), communication skills are vital to the competence of nurse managers. Most recently, in a review by Im and Aaronson (2020) titled *Best Practices in Patient Safety and Communication*; teamwork, and communication were indicated as "key drivers for safe care." The literature strongly supports that communication skills are critical to the success of nurse managers and influential regarding patient outcomes, organizational outcomes, job satisfaction, and employee retention.

In seeking accreditation from the International Joint Commission, the participating island hospital demonstrates a commitment to patient safety and quality of care. Likewise, the participating island hospital recognizes the support of skill development for their nurse managers as essential for improving competencies and its impact on patient outcomes, staff retention, and organizational outcomes. According to Chase (2012), nurse manager competencies are key contributors to the success of healthcare organizations (p. 1). Chase also describes the nurse manager role as having a broad influence over patient care outcomes and lengths of stay and the staff and physician satisfaction (p. 2). Chase defines competency as specific capabilities of attributes, skills, knowledge, and attitudes (p. 5).

A study of nurses' confidence in their abilities as nurse managers was conducted in 1999 by Chase (2010). In a follow-up study in 2010 by Chase (2010), the 1999 study was repeated to validate its psychometric attributes and qualities by comparing previous with current findings. Both studies looked at five specific domains inquiring with research questions regarding nurse managers' competencies and how they were perceived

as important for effectiveness for nurse managers. Chase (2010) addresses these competencies as "building blocks" in nurse manager skill development (p.18).

This DNP project began with team consultation and collaboration with the participating island hospital Senior Nursing Leadership regarding the overall needs of the nurse managers. Observations of nurse manager behavior by the participating island hospital Senior Nursing Leadership indicated a need for improved communication skills for this group. However, there was no quantitative data from the participating island hospital to validate that poor communication skills among the nurse managers contributed to less than desirable patient outcomes or organizational processes. A formative evaluation was necessary to determine a specific area of need. To further confirm the need in a quantitative manner, it was determined the use of the Chase NMCI tool would prove most valuable in obtaining not only an evaluation of communication/relational competencies but the other four nurse manager competency domains it addresses.

Chase (2012) has indicated that the Chase NMCI tool has three uses: to rate the importance levels of competencies which can provide guidance where to focus development; a specific self, peer, or supervisory assessment tool, which can provide an indication for areas of strength or opportunity for development; and as a pre-and post-level comparative measurement for plotting the progress of development of competencies (p.1).

The Chase Nurse Manager Competency Inventory Tool (Chase NMCI) was utilized as a pre-intervention survey in this project to evaluate an area of specific communication skill development need.

Literature Review

An initial literature review was conducted to explore nurse manager communication skills. Using PubMed, EBSCO, Cinhal, and Wiley, online library databases a search with English, full-text peer-reviewed articles, and publications dates from 2008-2020. As a very broad topic, the search raised thousands of articles. A narrowed search resulted in thirty-six articles and provided relevant information specific to communication skill development. Many articles identified communication skills as a primary factor in effective management. Three primary communication themes were identified throughout the articles: competency/effectiveness, relationship/relational, and team/interpersonal. Five articles addressed confidence and competence of communication in nurse managers.

As indicated herein, there are numerous examples in the literature of problems resulting from ineffective communications in healthcare and its devastating results. Likewise, there are innumerable examples indicated in the literature of problems resulting from ineffective communications and their catastrophic consequences. According to Kawamura (2015), something as seemingly insignificant such as being overly or under-confident in relaying information, can "give rise to information loss in communication" (p. 233).

In a current literature evaluation conducted by Fowler, Robins, and Lucero (2021), articles of quantitative peer-reviewed research from 2014 forward were reviewed for evidence of the influence of nurse manager communications in routine practice. Fowler et al. noted questions that arose relative to evidence of positive results based on competency levels. The PICOT question they proposed was "what evidence is there that

nurse leaders (P) with high communication competence (I), as opposed to those with lower communication competence (C), have better patient /staff outcomes (O) in a review of quantitative studies published after 2014 (T)? Significantly, the Fowler, Robins, and Lucero (2021) review included studies that examined outcomes relating to nursing leadership communications to patient or staff outcomes. They discovered a primary theme of articles indicating patient safety and quality to nurse manager communication skills.

Literature also gives evidence that increasing knowledge and understanding of communication skills and the ability to use them effectively impact nurse managers' competency and effectiveness within the work environment. Nurse managers need to have adequate and effective communication skills at all levels of an organization, and according to Zendrato et al. (2018), it is vital that they are supported in skill development.

Managers should be able to effectively communicate with peers and staff to provide the best outcomes for patients and the organization. An article published by *The Joint Commission* (2008) emphasized the need for teamwork and collaboration training. The article also emphasized the risk to patient safety and recommended training for communication and collaboration.

Literature Search Measurement Tool

Assessing communication skill competencies has numerous implications for nursing, the most important being improved patient and organizational outcomes. A separate search was also conducted using PubMed, EBSCO, Cinhal, and Wiley online libraries for a measurement tool for evaluating communication competencies. This search

resulted in five tools. One of those five tools, the Chase Nurse Manager Competency

Inventory, was selected for use in this project.

The complete Chase NMCI survey tool includes five different domains: healthcare

environment, communication/relationship, professional, leadership, and business skills.

Literature Search - Intervention

A similar literature review was conducted assessing the value and effectiveness of

the use of *TeamSTEPPS®* as a tested and proven educational method. *TeamSTEPPS®*,

developed by the Department of Defense in conjunction with the Agency for Healthcare

Research and Quality, was found to be an evidence-based system that provides training

and teamwork materials. The *TeamSTEPPS®* intervention toolkit is designed for adult

learners with the ability to be modified or adapted to fit staff and unit needs. This method

incorporates best practices for improving communication and teamwork skills for quality

and safety and the efficiency of healthcare.

Literature Search Intervention Measurement Tool

A focused literature search was conducted to evaluate the use and benefit of the

Kirkpatrick method of learning measurement. The literature affirmed the Kirkpatrick

method in measuring learning results and demonstrating beneficial outcomes of the

training within the *TeamSTEPPS®* model. Ardent (2020), an educational platform which

supports customized learning, acknowledges the Kirkpatrick Model as a global model for

evaluating training and learning program results.

Ardent (2020) also indicates the use of the Kirkpatrick Model as a four-level

approach and allows for an adaptable "actionable" measurement plan. The Kirkpatrick

Model measures results by; identifying areas of impact and provides for a course or plan to readjust as necessary by analyzing data at the various levels.

Problem Statement

There is a need for communication skill development for nurse managers at the participating island hospital. Improving communication skills is essential for optimizing patient and organizational outcomes. According to Kourkouta and Papthanasiou (2014), communication requires knowledge and skill, just like other aspects of nursing. From this, we developed our PICO - "Do nurse managers of the participating island hospital experience improvement in levels of knowledge and understanding and the ability to implement specific communication competencies as a result of a focused, evidence-based communication skills development intervention?"

Communication is a complex method of relaying information, how it is perceived, and how it is utilized. The consequences of communication, good or bad, can be a "make or break" situation. Helping nurse managers to improve communication skills is essential for optimizing patient and organizational outcomes.

Purpose

The primary purpose of this evidence-based study was to determine an area of skill development needed and support a positive change in the nurse managers' confidence and competence in communication skills. Nurse managers can improve confidence and competence in communication skills through knowledge, understanding, and the ability to implement feedback communication skills. In facilitating a focused, evidence-based educational intervention based on the needs of the participating nurse managers, there is support for skill development and improved organizational outcomes.

Aim

The aim was to improve communication skills among the nurse managers of the participating island hospital. As indicated throughout the literature, effective communication skills are essential to the success of nurse managers. Developing communication skills increases the effectiveness of communication. Likewise, the literature supports improved patient outcomes, and overall organizational success is optimized through effective communications.

Objectives

The objectives in meeting the purpose and aim were a multi-step process in identifying a need and developing and implementing a needs-based intervention. In achieving the outcome and aim, three objectives were identified:

1. Evaluating nurse manager communication needs through pre-intervention survey analysis using the Chase NMCI measurement tool.

2. Implementing a focused educational intervention based on pre-test results using the *TeamSTEPPS®* valid and reliable educational tool.

3. Evaluating post-intervention outcomes using the Kirkpatrick Model for Measurement.

Theoretical Framework

This project utilized a multi-model framework of which there were two primary frameworks. First is the Katz Three Skill Theoretical Model. The result of Katz's 1955 research and observation focuses on the "Skills of an Effective Administrator" in developing his Theoretical Model. He described the three different areas of skill as technical skills, human skills, and conceptual skills.

According to Chase (2012), Katz's theory is that managers utilize less technical skills as they move from specific responsibilities to broader, global operations. Their human and conceptual skills become more necessary, particularly human or relational skills. The Katz Theoretical Model is the conceptual framework for the Chase NMCI tool. The Chase NMCI is built on Katz's Theoretical Model.

Chase (2010) elaborates on the three areas of skill: technical activities as requiring certain skills imply a level of understanding and proficiency; human skills involving work with people cooperatively and effectively; and conceptual skills, which involve the ability to visualize overall operations such as interrelations of departments, and the organizations' role within the healthcare industry and community. Communication is a human skill where competency can be developed, and according to Chase, it is critical to the nurse manager's role. According to Katz (1974), the three skill areas are interrelated and may be perceived to be overlapping. However, Katz indicates addressing and applying the areas of skills separately may improve an independent skill and impact various other skills.

The second framework is a transformational construct model of theories according to the Agency for Research and Quality (AHRQ), (n.d.). The incorporation of the Salas Training Theory, Kirkpatrick Model of Measurement, and the Theory of Culture Change by Kotter all make up the *TeamSTEPPS®* teamwork tool. The *TeamSTEPPS®* tool is designed around improving communication and teamwork skills in healthcare.

The *TeamSTEPPS®* model is a training model for the development of specific skills that support or enhance team strategies and performance and focuses on improving

quality and patient safety needs. *TeamSTEPPS®* is an evidence-based system developed in collaboration with the Department of Defense (DoD) and the Agency for Healthcare Research and Quality to improve communication and teamwork skills among healthcare professionals and provide ready-made materials. The system is flexible and allows for adaptation for customizing its use.

The third framework which is incorporated within the *TeamSTEPPS®* model is the Kirkpatrick model for learning outcome measurements. The Kirkpatrick Model is a globally recognized method of evaluating the results of both formal and informal training. According to Kirkpatrick Partners (2021), it uses a four-level evaluation scale. Level one: (Reaction) - measures satisfaction. Level two: (Learning) - measures knowledge, skill, attitude, confidence, and commitment. Level three: (Behavior) – evaluates the application of things learned. Level four: (Results) – evaluates the degree to which outcomes occur. For use in this project, only Level I and Level II were used.

Project Study Design

This evidence-based project was a quasi-experimental analytical before and after study without an intended comparative group. It consisted of a pre-intervention survey and analysis, an intervention, and a post-intervention survey and analysis. Obtaining quantitative measurement through a pre-intervention survey using the Chase NMCI allowed for exploration and identification of the skill needs of nurse managers at the participating island hospital. The project team was composed of the DNP student, DNP faculty, and the participating island hospital senior nurse leadership consisting of the Director of Nursing and the Senior Nurse Leader for Professional Development.

Setting and Resources

The project setting was the participating island hospital. This project was conducted using the secured electronic email systems of both the participating university and the participating island hospital. The use of the university-approved QuestionPro survey software tool was used for the deployment of both the pre-intervention and post-intervention surveys. The intervention and post-intervention survey were provided via email to the Senior Nurse Leader for Professional Development at the participating hospital and distributed along with the introduction letter. Reminders were also be sent to the Senior Nurse Leader for Professional Development and provided at staff meetings regarding project participation.

Zoom and google technologies provided a platform for the educational video webinar for the intervention. The educational intervention was facilitated by the DNP student in collaboration with the project team. The video webinar was sent using Zoom and google via secured email to the Senior Nurse Leader for Professional Development at the participating hospital and distributed along with the introduction letter to the nurse managers. Reminders were also sent to the Senior Nurse Leader for Professional Development, who then provided the reminder to nurse managers at staff meetings regarding project participation.

Study Population

Sixteen nurse managers of the participating hospital included Medical, Surgical, CCU, Peds, Mental Health, OR Nurse Managers, the Chief Nursing Officer, and the Senior Nurse Leader for Professional Development. Eight of the sixteen nurse managers participated in the pre-intervention survey. Eight nurse managers participated in the pre-

intervention survey. Three nurse managers participated in the intervention, and three nurse managers participated in the post-intervention survey.

Pre-Intervention Survey

In support of the collaborative agreement between the university school of nursing and the island hospital, the complete Chase NMCI survey was conducted. The full Chase NMCI survey tool includes five different domains: healthcare environment, communication/relationship, professional, leadership, and business skills. The complete Chase NMCI survey provided data for future use by the senior nurse leadership team of the participating island hospital. Findings in this survey indicated nurse managers rated the importance of effective communications as essential for their role as a nurse manager. In addition, nurse managers indicated communications as an area of skill development they would benefit from. This information supported the observations of the nurse managers by the senior nursing leadership. Consequently, for the purpose of this project, the focus was the communication domain exclusively.

The Chase NMCI tool includes thirteen different categories within the communication/relational domain, which are aspects of the nurse manager role: effective communication, effective staffing strategies, recruitment strategies, retention strategies, effective discipline, effective counseling strategies, constructive performance evaluation, staff development strategies, constructive performance evaluation, staff development strategies, group process, interviewing techniques, team-building strategies, humor, and optimism. Focus for the intervention was placed on the results of the communication/relational domain of the Chase NMCI tool pre-intervention assessment.

Data Analysis

Data collection began with the deployment of the Chase NMCI survey provided over a two-week period to obtain a formative analysis. The QuestionPro survey platform used to deploy the Chase NMCI survey provides analytics to assist investigation and outcome analysis. The original Chase NMCI survey tool uses a four-point Likert rating scale. With the authors' approval to adapt as needed, a fifth point was added for this project in consideration of the diversity of the participating population. An observational view indicated a multi-cultural, multi-national, and multi-educational background of diversity. The five-point rating scale included:

One = contributes minimally to first-line nurse manager competencies

Two = contributes moderately to first-line manager competencies

Three = contributes significantly to first-line manager competencies

Four = essential for first-line nurse manager competencies

Five = I am unfamiliar with…

Nurse Managers' responses indicated how they rated each category in terms of importance in their role. A single survey question was added to determine if there was an area within the Chase NMCI survey tool that they identified as needing the most development. The QuestionPro survey platform used to deploy the Chase NMCI survey provides analytics to assist investigation and outcome analysis.

Communication as a relational domain is comprehensive. Likewise, each of the thirteen categories within the Chase NMCI Communication-relational domain is comprehensive. The survey results, which indicated areas of high importance to nurse managers, aligned with observations of the senior nurse leadership of nurse managers. These results and observations collectively influenced the determination of the area of

skill development intervention. A collaborative review of the data and much discussion led to the determination of the focused intervention of feedback skills in communication.

Intervention

The search for evidence-based prepared training tools led to the *TeamSTEPPS®* training models. The AHRQ provides tools and strategies, including *TeamSTEPPS®,* that assist healthcare systems and professionals provide quality and safety in patient care (AHRQ Core Competencies). *TeamSTEPPS®* is an educational training model developed by the Department of Defense (DoD) and the Agency for Healthcare Research and Quality (AHRQ) for the purpose of improving communication and teamwork skills. It is adaptable for customizing. The use of *TeamSTEPPS®* as an evidence-based training method was instrumental in supporting the project purpose and opportunity for positive change, as well as the aim of improving nurse manager communication skills. Within *TeamSTEPPS®* is the ability to measure the effectiveness of the intervention utilizing the Kirkpatrick Model.

Intervention Development

The evidence-based intervention was developed with the purpose of providing an educational opportunity for nurse managers with the goal of providing new or added communication skills of feedback. Intervention development utilized the *TeamSTEPPS®* educational Module 6 with a focus on feedback in communication skills. The *TeamSTEPPS®* Module 6: Mutual Support outlined feedback as part of this module. Module 6: Mutual Support was adapted for this project in consultation with AHRQ *TeamSTEPPS®* to focus on the skill of feedback in communication, specifically as a critical skill for nurse managers. The *TeamSTEPPS®* Module 6: Mutual Support was

used as the framework focusing on feedback in communication specifically. This public

health tool made available through the Agency for Healthcare Research and Quality

(AHRQ) was authorized for modification as necessary.

Intervention Implementation

The *TeamSTEPPS®* Module 6: Mutual Support was used as the framework

focusing on feedback in communication specifically. The intervention was presented as a

virtual online web-based PowerPoint presentation, uploaded through the university-

approved Zoom media application. It was deployed through secured email systems of

both the university and the participating island hospital. It was presented as a PowerPoint

presentation of approximately 15 minutes in duration using the *TeamSTEPPS®*

authorized adaptation of the skill of feedback in communication.

The objectives within the educational intervention were to: Define Feedback,

Recognize the Importance of Feedback in Communication, Identify Types of Feedback,

Describe the Characteristics of Effective Feedback, and Discuss how to provide Effective

Feedback. The importance of feedback was outlined from actiTIME (2021) as helping to

avoid major mistakes, forming better relationships, constructive feedback motivating

people, promoting personal and professional growth, helping to create a friendly work

environment, producing some business-related direct benefits. The benefits of feedback

(particularly positive) were addressed using Flannigan (2017) in that it gives specific

information to help improve communication. It makes performance expectations clear. It

creates enthusiasm and raises efficiency by reducing resentment and strengthening

relationships. The benefits of feedback (particularly positive feedback) gives clarity,

builds confidence and self-esteem, demonstrates care and participation, and allows the employee to feel acknowledged.

As indicated by Flannigan (2017), both formal and informal types of feedback were addressed as methods of providing information that enhances teamwork, increases patient safety, and can be provided by anyone at any time. Formal feedback being retrospective and typically scheduled in advance, and evaluative in quality was discussed. Examples given were collaborative discussions, case conferences, and individual performance reviews. Informal feedback, which is generally in real-time, provided on an ongoing basis, and focuses on knowledge and practical skills development was also discussed. Examples of informal feedback such as huddles, debriefings, and staff meetings were provided. Characteristics of feedback as being timely, respectful, specific, directed toward improvement, and considerate were also presented. A thirty-second video example of a healthcare team member providing effective feedback to another team member was provided. Feedback exercises were provided, including asking if the feedback provided in the video was timely, respectful, specific, directed toward improvement, and considerate. Additional feedback exercises included reflecting on how a nurse manager can best support staff in reaching individual improvement or team goals by thinking of examples using both informal and formal feedback. Nurse managers were also asked to reflect on a situation where they had to give feedback to another team member and ask themselves what the situation was, did they feel they achieved a positive outcome, and how the feedback could have been more effective.

Post-Intervention Survey

The post-intervention survey was conducted in conclusion to the intervention using the Kirkpatrick Learning Outcome Measurement Model. This model was used in evaluating nurse managers' perception of improvement of knowledge and understanding and ability to utilize feedback in communication skills as a result of the educational intervention. Without pre-test comparatives, the post-intervention measurement/evaluation can only address the perception of what the participants have learned. Evaluations require evidence of validity to provide any meaningful psychometrics and reliability. The reliability of a test indicates there is a consistency of a construct, according to Beckman et al. (2004). The use of the Kirkpatrick model provides validity and reliability of testing.

The QuestionPro survey tool accommodated the post-intervention survey and assistance with survey analysis. A post-intervention survey analysis using the Kirkpatrick Measurement Model Level I measure course satisfaction, and Level II measures knowledge, skill, attitude, or confidence or commitment gained. These results indicate if there is improvement in knowledge and understanding and the ability to implement feedback skills in communication

Timeframe

The IRB for the project was approved in January 2021, with the pre-intervention assessment survey deployed in February of 2021. Data analysis revealed no single skill development opportunity as a result of the survey. After numerous discussions and reviews of the initial data with the island senior nursing leadership, the original project design, which was to use the same pre-and post-intervention measures, was altered. A search was conducted in June of 2021 for a valid and reliable education instrument for

use post-educational intervention. It was concluded that the use of Kirkpatrick's Model of Training Evaluation proved valid and reliable. An amendment outlining the methodology for the intervention and support of the Kirkpatrick model was filed with the IRB and approved in August 2021. The notice of the educational intervention was sent out on August 14, followed by the deployment of the intervention, which was made available for two weeks. The post-intervention survey was completed throughout the two weeks of August 29-September 12, 2021. The post-intervention survey was then deployed for two weeks.

Threats, Benefits and Ethical Considerations

Participation was voluntary, with anonymity, and provided confidentiality. There were minimal threats or ethical concerns regarding this evidence-based project. There was no vulnerable population and no risk of harm or negative impact to participants. There was a reasonably very low concern for job security or embarrassment for indication of lack of skills required for the nurse managers due to anonymity and protected confidentiality.

Relevant demographics were obtained for this project which had no direct identification to participants. No personal identifiers other than employer-provided email addresses and names were used and protected through secured system access. Support for nurse managers in providing a skill-based educational opportunity with the benefit of CEU's provided by the participating island hospital contributed to the participating nursing managers' success as well as support organizational success.

Budget

The cost of this project was the doctoral student, preceptor, and participants' time. There was no cost to use the web-based Zoom method. The participating island hospital nursing leadership supported the time for the nurse leaders to complete the intervention and the post-educational survey and their participation in the intervention.

Sources of Data

The primary source of data was obtained directly from the nurse managers within the project population. The online software platform QuestionPro was used through the participating university. Use of the QuestionPro interactive technology allowed for creating and designing the survey as well as the support of the analytics. The survey was implemented using the Chase NMCI tool for framing the questions and its rating scale. An introduction was placed within the survey as well, including directives to the survey.

One hundred and fifteen Chase NMCI questions were built into the QuestionPro survey tool. One additional question inquiring "what area of management skill do you identify as needing most development in?" allowed for selection of the five Chase NMCI domains; healthcare environment, communication and relationship management, professional, leadership, and business skills and principles with the option to include "other" for identifying a different area they might need development in. Survey results were stored on the secured QuestionPro/participating university platform.

<div align="center">

Evaluation Plan

</div>

Analytics provided by QuestionPro included how many viewed the survey, how many total responses, how many completed the survey, and what the completion rate was. The average time to take the survey was included and indicated twelve minutes.

Results were demonstrated in graph and bar form showing the count (how many selected the given rating) as well as percentages of participants' responses.

The pre-intervention assessment survey was to provide an indication as to where to focus a supportive skill development intervention. The Chase NMCI pre-intervention survey is provided as an example is shown in Table 1, *Pre-Intervention Survey (Chase NMCI).* The intervention was then developed upon the identified need of the pre-intervention assessment survey outcomes. The post-intervention survey was to evaluate the effectiveness of the intervention in communication skill development in the defined area of need as perceived by the nurse managers.

<div align="center">

Results

</div>

Pre-Intervention Survey Results

Eight of the sixteen nurse managers responded to the pre-intervention assessment survey. Nurse managers indicated a high priority of importance among most competencies needed for the nurse manager role. Four of the thirteen communication categories were indicated with the highest importance. There was little variance between the importance of the remaining nine categories. Eight of the sixteen participating nurse managers indicated, through a rank order question within the survey, a desire to receive skill development in the category of effective communication. These results provided minimal quantitative data to guide the selection of an intervention, see Table 2, *Pre-Intervention Itemized Survey Chase (NMCI)*: Results.

Survey results revealed nurse managers indicated a high priority of importance among most competencies for the nurse manager role, including four categories with the highest priorities, see Table 3, *Pre-Intervention Survey Chase NMCI:* Results. The

communication/relational domain was indicated as one of the highest of importance to the nurse managers and aligned with the prior observational assessment of the senior nursing leadership of the participating island hospital. Based on these results and through much discussion and collaboration, it was determined that feedback skills in communication were a high priority need and an appropriate focus for this project. See Table 4, *Pre-Intervention Survey Outcome Analysis* for pre-intervention survey outcome analysis.

Intervention Participation Results

Three of sixteen participants completed the intervention. It was concluded that the impact of the Covid outbreak influenced the nurse managers' inability to participate in the pre-intervention survey and the project as a whole. The increased workload with patient care limited their ability to participate. For participation survey results, see Table 5, *Participation Rates.*

Post-Intervention Survey Results

The *TeamSTEPPS®* uses Kirkpatrick's multilevel model for evaluating the training programs' impact on learners. The Kirkpatrick evaluation structure utilized perceptions and feedback provided through the post-intervention survey. According to the AHRQ *TeamSTEPPS®; A Model of Training Evaluation*, measurements of training are indicated in terms of four different outcomes:

> *Level I—Reactions*—Reactions are defined as participants' perceptions of the training. There are two types: (1) affective reactions, which are related to whether participants "liked" the training, and (2) instrumentality reactions, which are related to whether participants found the training "useful."

Level II—Learning—Learning is defined at three levels: (1) attitudes (feel), (2) knowledge (know), and (3) skills (do). Regarding attitudes, the basic question to be answered is, "Do participants feel differently as a result of training?" Regarding knowledge, the basic question to be answered is, "Do participants know something new as a result of training?" Regarding skills, the question is, "Can participants do something differently/new as a result of training?"

Level III—Behavior—Behavior is defined as whether the new attitudes, knowledge and/or skills are transferred to the job. In other words, it measures whether participants use what they learned in training on the job and whether that produces improved job performance.

Level IV—Results—Results are defined as organizational benefits that are produced from training. In *TeamSTEPPS®*, results include patient outcomes, such as infection rates and patient perceptions of care, and clinical process outcomes, such as number of structured handoffs used and staff perceptions of safety (p. D-10-6).

Only levels I and II for this project were used to evaluate the nurse managers' perceptions. The post-intervention survey presented five questions addressing satisfaction and instrumentality indicated on a rating scale of strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, and strongly disagree.

The question was posed - indicate to what degree you agree with the statement: 1) this course was useful information regarding feedback skills needed in my role as a nurse manager. Results indicated one of the three participants strongly agreed that this course

was useful information regarding feedback skills needed in their role as a nurse manager. Two of three participants somewhat agreed that this course was useful information regarding feedback skills needed in their role as a nurse manager.

The question was posed - indicate to what degree you agree with the statement: 2) This course has helped me feel more confident and competent in applying feedback skills in my role as a nurse manager. Results indicated one of the three participants strongly agreed that this course helped them feel more confident and competent in applying feedback skills in their role as a nurse manager. Two of the three participants somewhat agreed that this course helped them feel more confident and competent in applying feedback skills in their role as a nurse manager.

The question was posed - indicate to what degree you agree with the statement: 3) This course improved my communication skills by enhancing my knowledge of feedback in communication. Results indicated one of the three participants strongly agreed that this course improved their communication skills by enhancing their knowledge of feedback in communication. Two of the three participants somewhat agreed that this course improved their communication skills by enhancing their knowledge of feedback in communication.

The question was posed – indicate to what degree you agree with the statement: 4) This course improved my communication skills by enhancing my understanding of feedback in communication. Results indicated one of the three participants strongly agreed that this course improved their communication skills by enhancing their understanding of feedback in communication. Two of the three participants somewhat

agreed that this course improved their communication skills by enhancing understanding of feedback in communication.

The question was posed – indicate to what degree you agree with the statement: 5) This course improved my communication skills by enhancing my ability to implement feedback in communication. Results indicated one of the three participants strongly agreed that this course improved their communication skills by enhancing their ability to implement feedback in communication. Two of the three participants somewhat agreed that this course improved their communication skills by enhancing their ability to implement feedback in communication.

Three open ended free text questions were also presented: 1) What was one thing you did not know about feedback in communications before this course? Two of three participants responded with new knowledge gained. One participant indicated familiarity with most information provided in the course. 2) Provide an example of how you will now apply feedback in your role as a nurse manager. One of three participants responded with being consistent when using feedback. Two of the three participants did not respond to the question. 3) What was the most important information you gained from this course? All three participants were able to respond with important information they gained from the course. For post-intervention survey outcome analysis, see Table 6, *Post-Intervention Survey Outcome Analysis.*

Demographics

Demographic information was obtained in the pre-intervention survey for the benefit of the participating island hospital. The participating island hospital has a very diverse population. Demographics obtained were: male/female: two male and eight

female, the highest level of education completed; one bachelors, five masters and two doctoral, current role; six nurse managers, one other and one not indicated, native culture; one American, one Caymanian, two Jamaican, one Latin American, and three other, how many years as an RN; eight with ten years or more, how many years as a nurse manager; one 0-5 years, one 6-9 years, six 10 or more years. For demographic results, see Table 7, *Demographic Results*.

Discussion/Implications

Literature supported improving nurse manager skills will benefit patients', peers, staff, and the healthcare community. The pre-intervention survey was informative yet not conclusive of the aggregate of nurse managers. The intervention provided support and opportunity for skill development. Survey results supported nurse managers experiencing improvement in knowledge and understanding and ability to implement specific communication competencies as a result of this focused, evidence-based intervention.

Participation rates were low; however, this does not invalidate the intervention or post-assessment. Nurse managers indicated information was gained. Only levels I and II of the Kirkpatrick IV Level Model were used in evaluating learning in this project. According to Kirkpatrick Partners (n.d.), training events generally only produce approximately 15% application of results. Kirkpatrick Partners recommends the use of the entire model. Maximizing outcomes depend on follow-through, reinforcement of the new knowledge learned, and support for continued skill development. According to Kirkpatrick Partners, "The degree to which this reinforcement and coaching happens directly correlates to improved performance and positive outcomes" (n.d. para.10).

Facilitators

Strong support for a project focus in communication skill development was evident in the literature. The study design provided clear steps in conducting the project; the Chase Nurse Manager Inventory was a reliable and valid survey instrument. The use of the Katz Three Skill Model as a framework for management skill development has been implemented over the past sixty-six years in improving leadership performance. Using the *TeamSTEPPS®* materials for training in feedback skills in communication was convenient and beneficial in that it is a pre-developed and organized method in which training and focus are directed towards patient safety and teamwork principles. The Kirkpatrick Learning Outcome Measurement Model as part of the *TeamSTEPPS®* materials provided a tested and proven learning evaluation tool. The use of technology, i.e., QuestionPro, email, Zoom, and Google, made for convenient communication and accessibility.

Barriers/Limitations

As a barrier to obtaining more robust data, the unavoidable Covid-19 conditions contributed significantly to low participation. Nurse managers, in addition to their management role, had to resume bedside care. Time constraints within their added workload made it difficult for them to participate in this project and skill development offering. The working conditions and staff shortage situation created limitations to this study in obtaining data from more participants.

Overall low participation rates in the pre-intervention survey prevented a clear picture of the skills needed among the aggregate of the island hospital nurse managers. The low participation rates do not invalidate the intervention nor the pre-and post-assessments. Regardless of low participation in the intervention, the post-intervention

survey does indicate meeting the aim of improving nurse manager communication skills at the participating island hospital. Notably, the methods used are replicable and worth adapting to other locations, large or small.

Recommendations

The following recommendations are presented based on knowledge gained from this project. Building upon data obtained and lessons learned from this project will help to guide and facilitate future projects or studies and nurse manager skill development of the participating island hospital. Incorporating the evidence-based methodology used and utilizing Kirkpatrick's Levels III and IV would provide a macro analysis of the nurse manager's skill development and its impact on the organization. These higher levels can be used to measure improvement and skill transference related to job performance and to measure results such as patient or clinical outcomes. Being creative and innovative about ways to increase participation and continuing with motivators such as Continuing Education Units would also prove beneficial. In addition, according to Chase (2012), the Chase NMCI tool is valuable for use in obtaining assessments on individuals in searching for areas of strength or weakness when used as a pre-and post-level of measurement.

<div align="center">Conclusion</div>

This project determined an area of skill development that was needed, as evidenced by the Chase NMCI pre-intervention survey results. The intervention supported the opportunity for positive change through an evidence-based specific intervention in feedback communication skills. All nurse managers who participated in the post-intervention survey indicated satisfaction and confirmed they experienced an improvement in levels of knowledge and understanding of feedback in communication.

The findings suggest that the efforts and investment of this project were beneficial to those who participated.

As indicated by Kourkouta and Papthanasiou (2014), communication requires knowledge and skill, just like other aspects of nursing. The participating hospital was supportive of the skill development of their nurse managers and the opportunity for improvement. The Chase NMCI pre-intervention survey provides quantitative data for future nurse manager skill development needs beyond communication skills. This project served as an initial step in identifying and developing opportunities for skill development of the nurse managers of the participating island hospital. The project provided data, tools, and effective methods for sustainability that were not present prior. It is hoped that although there were few participants that benefited from this educational intervention, that the reported new knowledge and skill gained will positively impact patients, peers, staff, and the organization they serve.

Tables

Table 1

Pre-Intervention Survey (Chase NMCI)

Instructions: Please rate the importance of each competency statement as it applies to the first-line nurse manager role by circling the appropriate number for both sections. Use the following rating scale. 4=Essential for first-line nurse manager competencies 3=Contributes significantly to first-line manager competencies 2=Contributes moderately to first-line manager competencies 1=Contributes minimally to first-line nurse manager competencies									

AONE-Communication and Relationship Management (Chase Human)		Knowledge and understanding of					Ability to Implement and/or use		
1	Effective Communication	4	3	2	1		4	3	2	1
2	Effective Staffing Strategies	4	3	2	1		4	3	2	1
3	Recruitment Strategies	4	3	2	1		4	3	2	1
4	Retention Strategies	4	3	2	1		4	3	2	1
5	Effective Discipline	4	3	2	1		4	3	2	1
6	Effective Counseling Strategies	4	3	2	1		4	3	2	1
7	Constructive Performance Evaluation	4	3	2	1		4	3	2	1
8	Staff Development Strategies	4	3	2	1		4	3	2	1
9	Group Process	4	3	2	1		4	3	2	1
10	Interviewing Techniques	4	3	2	1		4	3	2	1
11	Team-building Strategies	4	3	2	1		4	3	2	1
12	Humor	4	3	2	1		4	3	2	1
13	Optimism	4	3	2	1		4	3	2	1

Note. Table adapted from Chase NMCI (2012) with approval from the author

Tables

Table 2

Pre-Intervention Survey (Chase NMCI): Itemized Results

Communication/Relation Management (Chase Human)		knowledge and understanding					ability to implement and/or use				
1	**Effective Communication** *Likert Scale*	**5**	**4**	**3**	**2**	**1**	**5**	**4**	**3**	**2**	**1**
	N = number	**0**	**6**	**1**	**0**	**1**	**0**	**6**	**1**	**0**	**1**
	% = percentage	**0**	**75**	**12.5**	**0**	**12.5**	**0**	**75**	**12.5**	**0**	**12.5**
2	Effective Staffing Strategies *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	5	2	0	1	0	4	2	1	1
	% = percentage	0	62.5	25	0	12.5	0	50	25	12.5	12.5
3	Recruitment Strategies *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	3	4	0	1	0	3	3	0	2
	% = percentage	0	37.5	50	0	12.5	0	37.5	37.5	0	25
4	Retention Strategies *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	5	2	0	1	0	4	2	0	2
	% = percentage	0	62.5	15	0	12.5	0	50	25	0	25
5	Effective Discipline *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	5	2	0	1	0	4	2	1	1
	% = percentage	0	62.5	25	0	12.5	0	50	25	12.5	12.5
6	Effective Counseling Strategies *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	4	2	1	1	0	4	2	1	1
	% = percentage	0	50	25	12.5	12.5	0	50	25	12.5	12.5
7	Constructive Performance Evaluation *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	6	1	0	1	0	4	3	0	1
	% = percentage	0	75	12.5	0	12.5	0	50	37.4	0	12.5
8	Staff Development Strategies	5	4	3	2	1	5	4	3	2	1

#	Item										
	Likert Scale										
	N = number	0	4	3	0	1	0	4	2	1	1
	% = percentage	0	50	37.5	0	12.5	0	50	25	12.5	12.5
9	Group Process *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	3	3	1	1	0	3	3	1	1
	% = percentage	0	37.5	37.5	12.5	12.5	0	37.5	37.5	12.5	12.5
10	Interviewing Techniques *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	4	3	0	1	0	3	4	0	1
	% = percentage	0	50	37.5	0	12.5	0	37.5	50	0	12.5
11	Team-building Strategies *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	4	3	0	1	0	4	3	0	1
	% = percentage	0	50	37.5	0	12.5	0	50	37.5	0	12.5
12	Humor *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	3	3	0	2	0	3	3	0	2
	% = percentage	0	37.5	37.5	0	12.5	0	37.5	37.5	0	12.5
13	Optimism *Likert Scale*	5	4	3	2	1	5	4	3	2	1
	N = number	0	3	2	2	1	0	4	3	0	1
	% = percentage	0	37.5	25	25	12.5	0	50	37.5	0	12.5
14	What area of Management Skill do you identify as needing most development in? 1=Healthcare Environment 2=Communication and Relationship 3=Professional 4=Leadership 5=Business Skills 6=Other_____	6	5	4	3	2	1				
	N=number	0	4	0	0	4	0				
	%	0	**50**	0	0	**50**	0				

Note. Table adapted from Chase NMCI (2012) with approval from the author

Tables

Table 3

Pre-Intervention Survey (Chase NMCI): Results

INDICATED ESSENTIAL OR SIGNIFICANT Likert	Knowledge and Understanding	Ability to Use
Effective Communication	7 of 8 87.5%	7 of 8 87.5%
Team-building Strategies	7 of 8 87.5%	7 of 8 87.5%
Constructive Performance Evaluation	7 of 8 87.5%	7 of 8 87.5%
Interviewing Techniques	7 of 8 87.5%	7 of 8 87.5%
Effective Staffing Strategies	7 of 8 87.5%	6 of 8 75%
Effective Discipline	7 of 8 87.5%	6 of 8 75%
Retention Strategies	7 of 8 87.5%	6 of 8 75%
Recruitment Strategies	7 of 8 87.5%	6 of 8 75%
Staff Development Strategies	7 of 8 87.5%	6 of 8 75%
Effective Counseling Strategies	6 of 8 75%	6 of 8 75%
Humor	6 of 8 75%	6 of 8 75%
Group Process	6 of 8 75%	6 of 8 75%
Optimism	5 of 8 62.5%	7 of 8 87.5%
What area of Management Skill do you identify as needing most development in?		

1=Healthcare Environment
    2=Communication and Relationship
    3=Professional
    4=Leadership
    5=Business Skills
    6=Other _____
	4 of 8
	
	4 of 8	

Tables

Table 4

Pre-Intervention Survey Outcome Analysis

Pre-Intervention Survey (Chase NMCI)	(n)	(%)
Quantitative Measures:		
Indicated a need for communication skills intervention	4/8	50%

Table 5

Participation Rates

Participation Rates		
	(n)	(%)
Pre-Test Survey	8/16	50%
Educational Intervention	3/16	18.75%
Post-Intervention Survey	3/16	18.75%

Table 6

Post–Intervention Survey Outcome Analysis

Kirkpatrick – Level I   **Satisfaction: Affective / Instrumentality / Attitude**
Three survey questions - rating scale   [strongly satisfied, somewhat, satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, and strongly dissatisfied]
All (3 of 3) participants indicated: • satisfaction with the course   • the course provided useful information   • felt more confident using feedback skills

Tables

Table 7

Demographic: Results

Quantitative Results		
	(n)	(%)
Gender:	**8**	
Male	2	25%
Female	6	75%
Highest Level of Nursing Education	**8**	
Associate Degree	0	0%
Bachelor's Degree	1	12.5%
Master's Degree	5	62.5%
Doctoral Degree	2	25%
Current Role	**7**	
Nurse Supervisor	0	0%
Nurse Manager	6	85.71%
Nurse Director	0	0%
Other	1	14.29
Native Culture	**8**	
American	1	12.5%
Canadian	0	0%
Caymanian	1	12.5%
Filipino	0	0%
Great Britain	0	0%
Indian	0	0%
Jamaican	2	25%
Latin American	1	12.5%

Samoan	0	0%
Other	3	37.5%
How many years worked as a Registered Nurse	**8**	
0-4 years	0	0%
5-9 years	0	0%
10 or more	8	100%
How many years worked in Nurse Manager Role	**8**	
0-4 years	1	12.5%
5-9 years	1	12.5%
10 or more	6	75%

References

actiTIME (April 2021). *The importance of feedback.* https://www.actitime.com/project-management/importance-of-feedback

Agency for Healthcare Research and Quality. *AHRQ's Core competencies.* https://www.ahrq.gov/cpi/corecompetencies/index.html

Agency for Healthcare Research and Quality. TeamSTEPPS 2.0: Module 10. Measurement. https://www.ahrq.gov/teamstepps/instructor/fundamentals/module10/igmeasure.html#measures

Agency for Healthcare Research and Quality (n.d.). *Model for change*. https://www.ahrq.gov/teamstepps/longtermcare/references/modelchange.html

Agency for Healthcare Research and Quality (n.d.). *Model of training evaluation.* https://www.ahrq.gov/sites/default/files/wysiwyg/teamstepps/longtermcare/module10/ts2-0ltc_module10_ig_msmt.pdf

Ardent Learning Inc. (2020, February 19). *What is the Kirkpatrick model? Learn the 4 levels of evaluation.* https://www.ardentlearning.com/blog/what-is-the-kirkpatrick-model

Beckman, T. J., Ghosh, A. K., Cook, D. A., Erwin, P. J., & Mandrekar, J. N. (2004). How reliable are assessments of clinical teaching? A review of the published instruments. *Journal of general internal medicine*, *19*(9), 971–977. https://doi.org/10.1111/j.1525-1497.2004.40066.x

Chase, L. (2010). Nurse manager competencies. *University of Iowa.* Retrieved from https://ir.uiowa.edu/cgi/viewcontent.cgi?article=2762&context=etd

Chase, L. (2012). Are you confidently competent? *Nursing Management, 43*(5), 50-53. https://doi.org/10.1097/01.NUMA.0000413646.50095.e4

Choi, E. H., Kim, E. K., & Kim, P. B. (2018). Effects of the educational leadership of nursing unit managers on team effectiveness: Mediating effects of organizational communication. *Asian Nursing Research*, S1976-1317(17)30696-5. Advance online publication. https://pubmed.ncbi.nlm.nih.gov/29614322/

Controlled Risk Insurance Company (2015). *Annual Report Malpractice Risks in Communication Failures Annual Benchmarking Report.* CRICO. https://cdn2.hubspot.net/hubfs/217557/Malpractice%20Risks%20in%20Communi cation%20Failures%202015.pdf?__hssc=133161617.1.1601654062883&__hstc= 133161617.d5067bf6c4f74dd0886650ce5de76c4e.1601651502758.16016515027 58.1601654062883.2&__hsfp=1862780385&hsCtaTracking=fbb7b79e-f01a- 4b70-a058-40a8a3f64ebb%7Cc8c91df3-eda9-43fb-8a0a-f6882a17ec9d

Dingley, C., Daugherty, K., Derieg, M., & Persing, R. (August 2008). Improving patient safety through provider communication strategy enhancements. *Advances in Patient Safety: New Directions and Alternative Approaches (3),* Performance and Tools. https://www.ncbi.nlm.nih.gov/books/NBK43663/

Donaldson, M (2008). An overview of to err is human: Re-emphasizing the message of patient safety. In: R. Hughes, (Ed). *Patient safety and quality: An evidence-based handbook for nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 3. https://www.ncbi.nlm.nih.gov/books/NBK2673/

Flannigan, S., (2017, Fall). *Performance management: Giving and receiving feedback.*

    Seminar for Supervisors. Penn State Human Resources.

    https://hr.psu.edu/sites/hr/files/GivingAndReceivingFeedbackSupervisors.pdf

Fowler, K., Robbins, L., & Lucero, A., (2021) Nurse manager communication and

outcomes for nursing: An integrative review. *Journal of Nursing Management (29)* 1486-

1495. DOI: 10.1111/jonm.13324

Hughes, R. (2008). *Nurses at the "sharp-end" of patient care.* In: Hughes RG,

    (ed.). *Patient Safety and Quality: An evidence-based handbook for Nurses.*

    Rockville, MD: Agency for Healthcare Research and Quality (US); 2008

    Apr. Chapter 2. https://www.ncbi.nlm.nih.gov/books/NBK2672/

Im, D., & Aaronson, E. (2020). Best practices in patient safety and

    communication. *Emergency Medicine Clinic North America*, *38*, 693–703.

    https://doi.org/10.1016/j.emc.2020.04.007

Institute of Medicine & National Research Council. (1999). To err is human:

    Building a safer health system. *National Academy of Sciences*, 1–8.

    https://www.nap.edu/resource/9728/To-Err-is-Human-1999--report-

    brief.pdf

Katz, R. (1974). Skills of an effective administrator. *Harvard Business Review*.

    https://hbr.org/1974/09/skills-of-an-effective-administrator

Kawamura, K. (2015). *Confidence and competence in communication.* School of

    Economics, University of Edinburgh, UK Springer.

    https://link.springer.com/content/pdf/10.1007/s11238-014-9416-5.pdf

Kirkpatrick Foundational Principles (n.d.). *Kirkpatrick Partners*. Retrieved September

    26, 2021, from https://www.kirkpatrickpartners.com/Our-Philosophy/Kirkpatrick-

    Foundational-Principles

Kirkpatrick Partners (2021). *The Kirkpatrick Model*.

    https://www.kirkpatrickpartners.com

Kourkouta, L., & Papthanasiou, I. (2014). Communication in nursing practice. *Journal of

    the Academy of Medical Sciences of Bosnia and Herzegovina* (1), 65-67.

Kirkpatrick Partners (n.d.). *New World Kirkpatrick Model*. Retrieved September 26,

    2021, from https://www.kirkpatrickpartners.com/Our-Philosophy/The-New-

    World-Kirkpatrick-Model

Riah, H., (n.d.). When communication fails us. CRICO

    https://cdn2.hubspot.net/hubfs/217557/Malpractice%20Risks%20in%20Communi

    cation%20Failures%202015.pdf?__hssc=133161617.1.1601654062883&__hstc=

    133161617.d5067bf6c4f74dd0886650ce5de76c4e.1601651502758.16016515027

    58.1601654062883.2&__hsfp=1862780385&hsCtaTracking=fbb7b79e-f01a-

    4b70-a058-40a8a3f64ebb%7Cc8c91df3-eda9-43fb-8a0a-f6882a17ec9d

Table 1. Adapted from Chase (2012) Nurse Manager Competency Inventory. Are you

    confidently competent? *Nursing Management, 43*(5), 50-53.

    https://doi.org/10.1097/01.NUMA.0000413646.5

Table 2. Adapted from Chase (2012) Nurse Manager Competency Inventory. Are you

    confidently competent? *Nursing Management, 43*(5), 50-53.

    https://doi.org/10.1097/01.NUMA.0000413646.5

The Joint Commission. (2008). Behaviors that undermine a culture of safety. *Sentinel Event*

Alert, *40*, 1-3.

Zendrato, M., Hariyati, T., & Afriani, T., (2019). Description of an effective manager in

nursing: A systematic review. *Enfermeria Clinica, 29*(52), 445-448.

https://doi.org/10.1016/j.enfcli.2019.04.065