IMPACT OF COMMUNICATION TRAINING ON NURSES' VERBAL AND NON-VERBAL SKILLS AND PATIENT SATISFACTION

by

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ABSTRACT

Effective nurse communication correlates with favorable patient experiences and outcomes. Communication training programs are insufficient, although they do improve nurses' communication skills. The purpose of this quantitative, pretest-posttest quasi-experimental study was to examine the impact of a communication training intervention on nurses' perceptions of verbal and nonverbal skills, patient satisfaction with nurses' communication, and the overall rating of the hospital. The Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS) was the tool employed to collect data from 103 nurses to investigate the changes in nurses' perception of their own verbal and nonverbal scores from pretest to posttest. The analysis of historical satisfaction surveys from 81 inpatients before and 71 after the communication training was necessary to investigate the changes in relevant scores theorized to accompany the increases in communication ratings. Statistical findings suggested that a communication-training program for nurses demonstrated increased level of nurses' self-reported verbal and non-verbal skills, as well as for inpatients' level of satisfaction with nurse courtesy and respect. Other findings revealed that the implementation of a nurse communication-training program showed increased inpatients' perceived levels of satisfaction on nurses' listening skills, explaining things clearly, and the overall rating scores for the hospital but were not statistically significant. There was not much room for growth since the average pre-intervention communication score was 3.74 or more out of 4 and an average of 9.2 out of 10 for the overall hospital rating. The results provide valuable evidence that the developed communication skills program is effective in improving nurses' perception of their communication skills.

DEDICATION

I dedicate this dissertation to my family who stood by me for the entire journey. Without their ongoing and unselfish support, I would not have completed this project. Without a doubt, my husband was my strongest anchor. I maintained my well-being and sanity because of his continued support. My two daughters and my son-in-law encouraged me not to give up and to continue to explore every opportunity to reach this important academic benchmark. I also dedicate this dissertation to my lovely mother for her unfaltering love, patience, and support; and to my friends who sustained my spirit and stuck by me during the entire journey.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS/ACRONYMS

AGFI	Adjusted Goodness of Fit Index
AIDET	Acknowledge, Introduce, Duration, Explanation, and Thanking the patient
ASN	Associate of Science in Nursing
BSN	Bachelor of Science in Nursing
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CFI	Comparative Fit Index
CLEAR	Courteous Listening, Explaining, And Respectful
CMS	Centers for Medicare and Medicaid Services
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
IRB	Institutional Review Board
MSN	Master of Science in Nursing
NSVNCSS	Nurse Self-report Verbal and Nonverbal Communication Skill Survey
OMB	Office of Management and Budget
PRN	Premises, Recruitment, and Name

Chapter 1

Introduction

Patient satisfaction, processes, efficiency, and patient outcomes have become increasingly important topics for the health care industry because they are the justifications for hospital reimbursement (Centers for Medicare and Medicaid Services [CMS], 2013; Kutney-Lee et al., 2009). CMS started to tie Medicare payments to the hospitals' scores on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey since October 2012 (Kutney-Lee et al., 2009; Press Ganey Associates, Inc., 2013a), but very few studies were conducted to examine how hospitals may improve their performance (O'Leary, Darling, Rauworth, & Williams, 2013). The HCAHPS is a metric representing the patients' perceptions of quality care and their hospital experiences (American Heart Association, 2014; CMS, 2014b; Kottke & Isham, 2010; Studer, Robinson, & Cook, 2010; Veenstra & Hofoss, 2003). Patient experience and the introduction of value-based purchasing, transparency, and consumerism were showing a dramatic rise of results in the performance threshold of health care organizations, and so they were very concerning to their leaders (CMS, 2013). To stay competitive leaders must pay attention to the level of services healthcare professionals deliver to their patients (Mazor et al., 2013).

The Agency for Healthcare Research and Quality together with the Centers for Medicare and Medicaid Services developed the HCAHPS survey, which is also known as the Consumer Assessment of Healthcare Providers and Systems (CAHPS) hospital survey (CMS, 2014a; Goldstein, Farquhar, Crofton, Darby, & Garfinkel, 2005; Studer et al., 2010). This survey was the first national, standardized survey of patients'

perspectives of hospital care reported publicly (Studer et al., 2010). In any healthcare setting, the HCAHPS instrument is far more meaningful as a measuring tool for patients' perspectives on hospital care than as a patient satisfaction survey.

The highlights of the HCAHPS instrument are to improve care coordination among health care providers, expand transparency and health reform, focus on patient-centered care, and enhance communication to increase quality and safety for the patients (Downey & Happ, 2013). Effective communication correlates with positive patient experiences and higher satisfaction scores (Downey & Happ, 2013; Fleischer, Berg, Zimmermann, Wuste, & Behrens, 2009; Keefer, 2011; Press Ganey Associates, Inc., 2013b), and so many researchers have conducted studies to evaluate the effectiveness of communication skills training programs (Johnston, Fidelie, Robinson, Killion, & Behrens, 2012). Sufficient literature suggested that nurses lack the skills to communicate effectively in hospital settings, which highlighted the need for better patient-provider communication (Bach & Grant, 2009; Downey & Happ, 2013; Joint Commission, 2010a; Joint Commission, 2010b). Among the problems identified with nurse-patient communication were providing insufficient information, giving incorrect information, or not providing any information at all (Keefer, 2011). Despite the knowledge that effective communication is an essential part of caring for patients, the evidence showed that communication in health care remained problematic (Despins, 2009; Norgaard, Ammentorp, Kyvik, & Kofoed, 2012; Wilkinson, Linsell, Perry, & Blanchard, 2008).

Chapter 1 involved the background information in patient satisfaction and nurses' communication skills, explanation of the study purpose, and discussion of the research questions. Chapter 1 also covered an overview of the significance, nature, and scope of

the study, the theoretical framework, and a description of the study limitations and delimitations. This section concluded with a summary of the chapter.

Background of the Problem

The foundation of any healthcare team is effective and collaborative communication because of its importance to the well-being of patients (Baer & Weinstein, 2013; Keefer, 2011; Mazor et al., 2013). Communication skills are significant for the safety of patients; however, the achievement of good communication skills was not the priority of healthcare educational programs (Keefer, 2011). Other problems with health care professionals reported by patients were providing incorrect information or not providing information at all; lack of respect and involvement; and not meeting patients' needs and expectations (Bach & Grant, 2009; Epstein, Alper, & Quill, 2004; Joint Commission, 2010a). Health care leaders shortened the average length of stay for patients in many instances, which made the nurses work even harder with less time (Keefer, 2011).

Researchers recognized many effects of poor communication among health care professionals (Kirby, 2010; Moffat, Cleland, van der Molen, & Price, 2007; Raica, 2009). Poor communication has many unintended and undesirable consequences to the psychosocial experience of patients (Thorne, Bultz, & Baile, 2005). For instance, the result of a quantitative study conducted in a primary care setting revealed that poor healthcare professional-patient communication seemed to explain the poor acceptance of self-management plans for asthma patients (Moffat, Cleland, van der Molen, & Price, 2007). Raica (2009) reported that poor communication or miscommunication poses a significant threat on the safety of hospitalized patients.

The Joint Commission database showed that poor communication was the cause of 70% of sentinel events (Kirby, 2010), which was greater than the number of sentinel events involving patients' assessments and their compliance with procedures. Each year, between 210,000 and 440,000 hospitalized patients may die because of preventable harm (James, 2013). According to Blank (2012), a report from the Institute of Medicine indicated several barriers to HIV care in the U.S. Those barriers included noncompliance, lack of communication among the providers, delayed diagnosis, and delayed access to support services (Blank, 2012). A common factor in many medical errors and adverse events was poor and ineffective inter-collegial communication (Reader, Flin, & Cuthbertson, 2007). Inter-collegial communication involves uncompromised sharing of information, values, and outlooks for effective verbal and nonverbal communication (Reader, Flin, & Cuthbertson, 2007). The findings from the literature suggested that professional educators and training programs did not address the issues in communication, and so it contributed to why nurses lacked the essential skills to communicate effectively (O'Leary et al., 2013; Suikkala & Leino-Kilpi, 2005; Wittenberg-Lyles, Goldsmith, & Ferrell, 2013). Nurses communicated their messages very poorly with the patients because they focused too much on their daily tasks (McCabe, 2004).

Chapman (2009) wrote that transparent and open communication remains a huge challenge in healthcare. Findings from a study by Kirby (2010) demonstrated that the cause of preventable problems and malpractice goals related to the quality of care were mostly from poor teamwork and inaccurate information or poor communication (Kirby, 2010). King et al. (2013) conducted a qualitative study with the use of in-depth

interviews and focus groups to examine how nurses transitioned the care of hospitalized patients into a skilled nursing facility. King et al. (2013) researched on the challenges and associated patient outcomes with differences in care transition quality by involving 27 nurse participants within five skilled nursing facilities. The nurses cited multiple inadequacies in hospital discharge information, such as issues with medication orders, not addressing pain medication, and inaccurate information on health information (King et al., 2013). The economic impact of poor communication is worthy of examination and King et al. (2013) recommended to heighten and mobilize this field of research.

Despite the extent of difficulties identified with nurse-patient communication, the number of studies conducted to investigate how nurses might improve their communication skills was insufficient (Boss, Urban, Barnett, & Arnold, 2013; McCabe, 2004; Tabak, Itzhaki, Sharon, & Barnoy, 2013). For example, patients have the right to know the truth about their conditions and diagnoses while in the hospital; however, the nurses' level of determination to tell the truth to non-oncology patients is limited because of the inadequate attention for this topic (Tabak et al., 2013). One cause of nurses' ineffectual communication skills as identified by Krimshtein et al. (2011) was the lack of adequate training. Consequently, nurses do not possess the essential skills to communicate and appreciate patient-centered communication (O'Leary et al., 2013). The study results conducted by Moore, Wilkinson, and Mercado (2004) revealed that communication skills did not improve necessarily with the length of experience. Instead, communication interventions showed enhancement in nurses' verbal and nonverbal skills and confidence (Fukui, Ogawa, & Fukui, 2010; Raica, 2009). Several researchers suggested that the problems with nurse communication persisted because of inadequate

training programs to help nurses improve their communication skills (Krimshtein et al., 2011; Norgaard et al., 2012). In another study by Sargeant, MacLeod, and Murray (2011), the results showed that formal communication-training programs improved the communication skills of health professionals. Despite this finding, serious problems with communication persisted between patients, their families, and healthcare providers (Berry, 2009; Dahlgaard, Pettersen, & Dahlgaard-Park, 2011; Norgaard et al., 2012).

The conceptualization of this study arose from the obvious concerns of the healthcare industry and pressure to provide safe and high-quality care (CMS, 2013; Press Ganey Associates, Inc., 2013b). Study findings suggested that patients were more satisfied because of treatment stemming from improved nurse communication skills through training. These findings have the potential to motivate hospital administrators of the study site to provide training for all other nurses and employees in the healthcare system and to identify areas that needed improvement in communication. However, study findings did provide evidence to assist in establishing and building a model to support the growth and competence of program designers in developing, evaluating, and revising curriculum on unit specific communication training courses.

Problem Statement

General problem. The general problem was the habitual poor perceptions of care and low customer satisfaction scores that could affect clinical outcomes and translate into poor organizational financial performance (CMS, 2013; Kutney-Lee et al., 2009; McCarthy & Blumenthal, 2006; Press Ganey Associates, Inc., 2013b; Zygourakis et al., 2014). Dissatisfied patients could switch health care providers, from better qualified to less qualified providers, which could lead to lower quality of care, higher cost,

inefficiency, lower reimbursements, and most importantly contribute to adverse outcomes (CMS, 2013; Machida & Entel, 2008; Press Ganey Associates, Inc., 2013b; Zygourakis, Rolston, Treadway, Chang, & Kliot, 2014). Negative hospital experiences were the reasons why 23% of Americans considered switching hospitals (Machida & Entel, 2008). Controlling and managing patients' perceptions of their care and the overall rating of the hospital were very challenging because they could affect clinical outcomes, and directly influence the financial performance of healthcare organizations (Press Ganey Associates, Inc., 2013b; Zygourakis et al., 2014).

Results of recent studies revealed that the nurses' ability to communicate effectively with patients and other healthcare professionals correlated highly with better patient outcomes, improved perception of the overall rating of the hospital, and higher scores on patient satisfaction (Press Ganey Associates, Inc., 2013; Studer et al., 2010). Effective communication involves collaboration and interaction among health care workers, patients, and their families (Kirby, 2010), and is a crucial factor in providing a high standard of care, increasing professional satisfaction, and improving patient outcomes (Fukui et al., 2010; Kirby, 2010; Press Ganey Asssociates, Inc., 2013b: Studer Group, 2007). However, nurses often lack self-confidence and effective skills when they communicate their opinions in caring and managing patients, which poses a significant threat to patient safety and the quality of care (Kirby, 2010; Raica, 2009; Studer Group, 2007).

Specific problem. The specific problem was nurses often lacked the necessary skills to communicate effectively with patients and other health care professionals, which could result to negative patient outcomes and poor financial performance (CMS, 2013;

Farahani, Sahragard, Carroll, & Mohammadi, 2011; Fukui et al., 2010; Mullan & Kothe, 2010; Press Ganey Associates, Inc., 2013b; Zygourakis et al., 2014). Additionally, the effectiveness of a communication-training program for nurses was unknown, based on contemporary research articles (Boss et al., 2013; Mullan & Kothe, 2010), and the evidence on how nurses might improve their communication skills was limited (Boss et al., 2013; McCabe, 2004; Tabak, Itzhaki, Sharon, & Barnoy, 2013). Recent research also revealed that insufficient communication-training courses is the cause of why nurses have poor communication skills, especially with their clinical communicative skills and behavior (Boss et al., 2013; Fukui et al., 2010; Raica, 2009; Zamanzadeh et al., 2014).

Poor or ineffective communication is a common factor in low customer satisfaction, medical errors, and adverse events (CMS, 2013). The Joint Commission reported that different issues with communication ranked second (63%) in 2013 and third (64%) in 2014 as the most frequently identified root cause of sentinel events in the U.S. (Joint Commission, 2016). In 2010, there were 180,000 patient deaths in Medicare alone attributed to bad hospital care and poor communication among health professionals (Allen, 2013).

Many sentinel events are preventable with effective communication (Joint Commission, 2014). Numerous studies evaluated the effectiveness of generic communication training programs with mixed outcomes. For example, Liu, Mok, Wong, Xue, and Xu (2007) evaluated an integrated program on communication skills in Beijing, China and found a general lack of communication training specific for oncology nurses. Liu et al. (2007) developed and administered a communication training necessary in cancer patients' care and the results showed improvements in the overall basic

communication skills of the oncology nurses. In 2010, Fukui et al. examined the effects of a 6-hour communication skills workshop to develop the confidence and competence of oncology nurses in Japan when breaking bad news to their patients. The findings showed an increase in nurses' competence and confidence 3 months after the nurses participated in the communication-training workshop.

In communication-training programs, nurse education is a major component that might motivate those who express a lack of awareness, knowledge, and skills on effective nurse-patient communication strategies. The lack of communication training might impede the nurses from engaging the patients with effective communication (Boss et al., 2013; Johnson et al., 2012). Addressing a potential gap in the nurse communication skills education could lead to improved level of perception and actual behaviors on verbal and nonverbal skills among study participants. The focus of the study was to address the gap in literature in the nurse communication-training process in an acute care setting by examining the impact of a communication-training program on the nurses' perceived level of their own verbal and nonverbal skills and the patients' perceived level of satisfaction with nurse communication.

Purpose Statement

The purposes of this quantitative, pretest-posttest quasi-experimental study were to assess the effects of administering a communication-training program as independent variable on the following dependent variables: (a) nurses' perceived level of their verbal and nonverbal communication skills, (b) inpatients' perceived level of satisfaction with nurses' communication related to respectfulness and courtesy, careful listening, and understandable explanations, and (c) inpatients' perceived level of the overall rating of

the hospital as measured by HCAHPS scores. The goals of the study were to improve the verbal and nonverbal communication skills of the nurse participants and to engage them with the strategies in effective communication. The expectation was for nurse participants to incorporate the strategies learned in the communication training in their clinical practice and not only to demonstrate improved communication skills but to have a positive impact upon patient satisfaction in nurse communication and in the overall rating of the hospital.

The belief was the quantitative quasi-experimental study would assist in providing explanations and understanding the obstacles that might affect nurse-patient communication in one large urban hospital in the southeastern United States. Measuring the changes before and after the intervention using an experimental design with control groups was ideal; however, ethical reasons with the targeted population in the study setting prevented this from happening. A quasi-experimental design was appropriate because this study did not involve the use of random assignment of participants to groups. In a quasi-experimental study, researchers may or may not use a control group (Polit & Beck, 2012). The manipulation of an entire group of the convenience sample of nurse participants helped to assess if a communication skills training intervention would change the nurses' perception of their own verbal and nonverbal communication skills. The strategies to inform the participants about the communication training were through direct referrals from their nurse managers, presentations, and by word of mouth.

In the study, the nurse participants took the same survey at the beginning of the training and immediately after the training using measures of verbal and nonverbal skills. For patient responders, the satisfaction scores on nurses' communication skills were

collected before the communication training from one group of inpatients for two total months, and the same data were collected for two total months after the training from another group of inpatients for data analysis. The use of both a pretest and a posttest helped to identify if there were differences on the dependent variables in the group of participants before the intervention (Marczyk et al., 2005; Polit & Beck, 2012). This technique gave more confidence in inferring that the independent variable was responsible for the changes in the dependent variables (Marczyk, DeMatteo, & Festinger, 2005).

Significance of the Study to Nursing Practice

O'Leary et al. (2013) noted that very few researchers examined the benefits of communication skills training from the patients' perspectives. Study findings showed that effective nursing communication, which involved collaboration and interaction among health care workers and patients was essential to provide safe and effective care (Fukui et al., 2010; Johnston et al., 2012, Kirby, 2010). Several study results revealed that effective communication was a crucial factor in increasing the satisfaction of health care workers, patient satisfaction, and patient outcomes (Fukui et al., 2010; Kirby, 2010; Press Ganey Asssociates, Inc., 2013b; Studer Group, 2007). Health care practitioners understood the importance of satisfying patients because they could choose any healthcare facility (Barlow, 2009). Leonard and Frankel (2011) supported the findings of research studies that effective communication, teamwork, and reliable health care processes are fundamental to the delivery of safe, high-quality patient care. Improving the communication between patients and health care providers did not only improve

patient experience, but also reduced missed communication, misinterpretation, misunderstanding as sources of medical errors (CMS, 2013; Downey & Happ, 2013).

Enhanced communication and management of care can help improve the patient perception of safety, quality of care, and the overall rating of the hospital (CMS, 2013; Downey & Happ, 2013; Press Ganey Associates, Inc., 2013b). The researchers from Press Ganey Associates, Inc. (2013c) found that an improvement in the performance in nursing communication could affect up to half of the 30% of the hospitals' value-based purchasing incentive payments. The basis of this estimate was the firm influence of the performance in communication with nurses on the other four measures for the hospital. Those measures include (a) staff's responsiveness, (b) management of pain, (c) communication about medications, and (d) the overall rating of the hospital (Press Ganey Associates, Inc., 2013c). Communication with nurses led the other four measures in a previous study by the researchers at Press Ganey Associates (Press Ganey Associates, Inc., 2013c), and reported the results publicly on the Medicare Hospital Compare Website. The key drivers for the scores with nurse communication were the following three questions comprising nurse communication as part of the care from nurses from the HCAHPS Survey (2015) (see Appendix D):

> (a) During this hospital stay, how often did nurses treat you with courtesy and respect? (b) During this hospital stay, how often did nurses listen carefully to you? (c) During this hospital stay, how often did nurses explain things in a way that you could understand? (p. 61)

Nature of the Study

The intent of this quantitative, pretest-posttest quasi-experimental research study was to assess the estimated impact of a communication-training program (independent variable) designed to empower nurses to communicate better. The dependent variables were (a) nurses' perceived level of their verbal and nonverbal communication skills, (b) patients' perceived level of satisfaction scores related to communication with nurses items (courtesy and respect, careful listening, and understandable explanations), and (c) patients' perceived level of the overall rating of the hospital.

The instrument to gather demographic information and to measure the dependent variables from the nurse participants was the Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS) developed by Johnston et al. (2012). A copy of these questionnaires are, Appendix B for the pretest, and Appendix C for the posttest. Measurement of the nurse outcome required comparison of the level of nurses' perception of their verbal and nonverbal communication skills on pretest with the level on the posttest.

The instrument used by the hospital's survey vendor to gather patient data was the HCAHPS survey (see Appendix D). The investigator compared the level of satisfaction with nurse communication items and the overall rating of the hospital from one group of patient respondents from two telemetry units for a total of 2 months before conducting the communication-training program with 2 months of data from another group of patient respondents following completion of the training. The ever-changing components of patient population made it impossible to evaluate the outcomes from the same inpatient group or population prior to and after the administration of the training.

The quantitative method was appropriate for this study because the nurse researcher followed a standard format to generate a hypothesis to be proved or disproved and supported or rejected using statistical data. A major focus of the present research was the objective measurements and the statistical or numerical analysis of nurses' outcome data collected through questionnaires, and patient numerical outcome data collected through surveys. The quantitative method allowed quantification of the problems by way of generating numerical data and then transformed into useable statistics (Polit & Beck, 2012). The researcher used predetermined instruments to collect the data that yielded statistical results and with known and quantifiable variables; all of which are characteristics of a quantitative methodology (Polit & Beck, 2012; Salkind, 2008; Vogt, 2007).

A qualitative study was not appropriate for this research because the researcher did not bring to the research her values, interest, or biases (Knowles & Cole, 2008; Polit & Beck, 2012). In any qualitative study, the researcher collects data through interviews in the form of constructs, patterns, and themes (Creswell, 2008), and the researcher explores the problem (Knowles & Cole, 2008), which were not the case in this present study. The researcher in this study did not explore unknown variables not documented previously to understand and describe complex phenomena, which is representative of qualitative research (Creswell, 2008).

The study design was a pretest-posttest quasi-experimental design. This study was a low-level quasi-experimental design where the subjects acted as their control, which is true in many repeated measures design (Polit & Beck, 2012). According to Goba, Balfour, and Nkambul (2011), quasi-experimental designs allow researchers to

establish causal inferences, when researchers could not use the experimental method. The study involved a sample of 103 registered nurses employed in one large urban hospital in the southeastern United States. The nurse participants were from two telemetry units pre-assigned into one group to meet the minimum sample size of 90, based on outcomes of a priori power analysis. The pre-assignment of participants confirmed the appropriateness of the quasi-experimental design (Polit & Beck, 2012).

The trainers offered the communication intervention to all nurse participants; although, participation was voluntary. Each participant received a copy of the Information Sheet for Research/Informed Consent (see Appendix A), which contained information about the study purpose, design, timeline, voluntary participation, and assurances of anonymity for participants.

The patient sample consisted of 2 months of historical satisfaction scores on nurse communication and the overall rating of the hospital from adult inpatient respondents before and 2 months after the training. The actual number of patient respondents was 81 before and 71 after the training. The exclusion criteria were patients younger than 18 years, patients discharged to hospice, prisoners, and patients with international addresses, mentally impaired, or patients who expired (CMS, 2013). CMS (2013) already excluded those inpatients that met the exclusion criteria.

Within 48 hours of patient discharge from the hospital, the survey vendor mailed the HCAHPS survey to qualified participants. The patient data came from different groups of patients before and after the training program because the ever-changing components of patient population made it impossible to evaluate the outcomes from the same patients before and after the training program.

Descriptive statistics, such as frequencies and percentages, means, standard deviations, and standard error, proved helpful to compare participants' demographic characteristics pretest versus posttest (Marczyk et al., 2005; Vogt, 2007). Means and standard deviations were valuable in the analysis of ratio and interval data (Howell, 2010). The *t*-test assessed whether the means of two groups were statistically different from each other (Vogt, 2007). The statistical tests performed for nominal or ordinal data were frequencies, medians, and percentages (Polit & Beck, 2012), and the use of chi-square allowed the comparison of the discrepancy between observed and expected frequencies (Marczyk et al., 2005).

A paired sample *t*-test was the statistical test to determine the changes in nurses' self-reported verbal and nonverbal communication skills from pretest to posttest. The statistical equations used to compare the changes in HCAHPS scores from pretest to posttest were the chi-square and an independent sample *t*-test (Marczyk et al., 2005). Since the HCAHPS scores were collected from two different groups of patients and it was not possible to match the HCAHPS scores with a specific nurse participant's pretest and posttest, an independent sample *t*-test was instrumental in comparing the changes in mean score over time. An independent sample *t*-test is a conservative estimate of the statistical significance of a change, and it is a less powerful technique in accounting for individual differences than a paired sample-*t*-test (Marczyk et al., 2005).

Research Questions and Hypotheses

Research questions allow researchers to limit the purpose statement to specific questions that enable a full exploration of the study topic (Polit & Beck, 2012). The research questions developed for the study were to determine the estimated impact of a

communication-training program on the nurses' perceived level of their verbal and nonverbal communication skills and on their patients' perceived level of satisfaction with their hospital care and experiences with communication with nurses. The research questions were useful in the development of the three hypotheses that guided this research study. The first research question (RQ1) measured the level of nurses' perception of their verbal and nonverbal communication skills. The second research question (RQ2) measured the inpatients' perception of the level of satisfaction with nurse communication related to how frequent nurses provided courtesy and respect, listened carefully, and provided understandable explanations as measured by HCAHPS scores. The third research question (RQ3) measured the inpatients' perceived level of the overall hospital rating as measured by HCAHPS scores.

The statistical data gathered from the Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS) and the Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS) were used in the investigation of the hypotheses. Researchers use hypotheses to determine if a relationship exists between two or more variables (Polit & Beck, 2012). The following are the three research questions with corresponding null and alternate hypotheses.

Research Question 1 (RQ1) and Hypotheses. RQ1: What effect, if any, does a communication-training program have in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States?

$H1_0$: A communication-training program will not result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

$H1_a$: A communication-training program will result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

Research Question 2 (RQ2) and Hypotheses. RQ2: How does a communication-training program for nurses affect inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations as measured by HCAHPS scores?

$H2_0$: A communication-training program for nurses will not result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations as measured by HCAHPS scores.

$H2_a$: A communication-training program for nurses will result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations as measured by HCAHPS scores.

Research Question 3 (RQ3) and Hypotheses. RQ3: What is the effect of a nurse communication-training program in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores?

$H3_0$: A nurse communication-training program will not result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

$H3_a$: A nurse communication-training program will result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

Theoretical Framework

Polit and Beck (2012) described the concept of a framework as the overall foundation of the study. The conceptual framework of the communication-training program was an integration of the CLEAR **(C**ourteous **L**istening, **E**xplaining, **A**nd **R**espectful) Communication Model (see Figure 1) developed by the researcher for this study, and Watson's human caring theory (Watson, 1985, 1988, 2002). The model depicts better patient HCAHPS satisfaction scores resulting from clear communication delivered from a deeper human caring connection.

The CLEAR communication model. Figure 1 depicts the conceptual model of the study. The CLEAR communication model reflects the visualization of the research questions. The *bow* represents the communication-training program that launches the arrows. The ***arrows*** represent cause and effect of the communication-training program (intervention) to the study variables that include nurses' perceived level of verbal and nonverbal skills, patients' perceived level of satisfaction with nurse courtesy and respect, careful listening, understandable explanations, and the overall hospital rating. CLEAR is an acronym that signifies the desired nursing **communication traits** of the CLEAR Communication model, which include "**C**ourteous **L**istening, **E**xplaining, **a**nd **R**espectful" communication. The ***target*** represents patient satisfaction as measured by HCAHPS scores. The ***outer rings*** depict individual nursing communication aspects measured within HCAHPS and the ***bull's eye*** represents the overall hospital rating. The

graphic depiction of the CLEAR Communication model emphasizes the significance of a communication-training program, caring behavior, and awareness of heart-felt connections in nursing practice to influence HCAHPS scores.

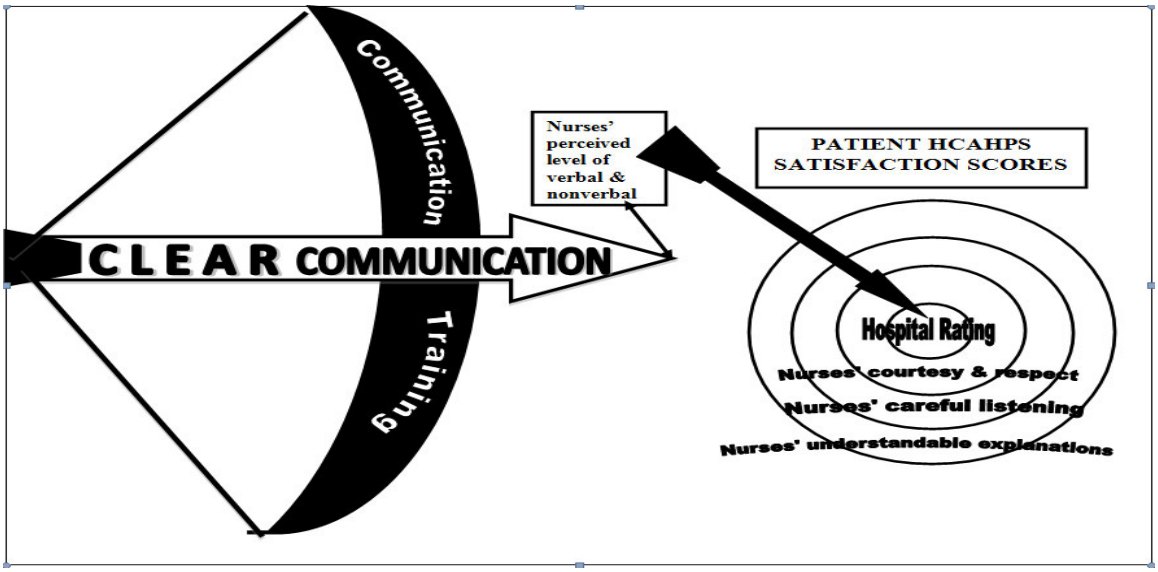

Figure 1. The graphic depiction of the CLEAR Communication Model. The design for the CLEAR communication model is from the findings in the study relating to communication-training program, the component behaviors and traits of communication with nurses from the HCAHPS survey, and the benefits of effective communication to patients' satisfaction. The creator of this model was the nurse researcher. All rights reserved.

Researchers from CMS (2013) and Press Ganey Associates, Inc. (2013b) found that both improved patient experience and increased satisfaction scores were results of better patient outcomes. Better patients outcomes include but not limited to a reduction in patient length of stay, lower readmission rates, decreased mortality rate, more cost-effective processes and services, higher efficiency, and more educated patients and family members (CMS, 2013; Studer Group, 2005, 2007). Other better patient outcomes may include improved HCAHPS scores, better compliance with CMS core measures, and recognition as the provider-of-choice (CMS, 2013; Studer Group, 2005, 2007).

Watson's human caring theory provided a central theoretical direction for human caring behavior (Watson, 1988, 2002), but the scope is too broad. The structural design of the CLEAR communication model narrowed the range to simplify the understanding of the traits and behaviors relative to nurse-patient communication as advocated by Studer Group (2007). The CLEAR communication model served as the basic structure of the training program to renew the art and science of caring in communication (Watson, 1979, 1988, 2002). The central concept of the CLEAR communication model was to promote a deeper level of human caring by practicing the traits and behavioral principles of the model to communicate with patients and their families as well as with each other.

The component behaviors of the communication with nurses from the HCAHPS survey questionnaire measured the estimated level of effectiveness of the communication-training program as perceived by the participants. The assumptions of the caring theory emphasized how central the practice of caring was to nursing (Watson, 2002). Watson (1988) defined caring as a moral ideal and engagement with one another that entails both the body and soul. She emphasized the need for caring to take precedence where curing was dominant. Both Watson (2002) and Wills (2011) noted that the interpersonal practice and demonstration of caring helped to promote health and the growth of individuals and families. Study findings from Studer Group (2007) suggested that the potential for nurses to display courteous and respectful behaviors, listen carefully to patients, and explain things clearly to patients and their families improved with training. Other ways that demonstrated caring communication attributes included practicing loving kindness, authentic presence, interpersonal engagement, and instilling hope (Watson, 1979, 1988, 2002). These caring attributes contribute to the practice of

holistic nursing (Watson, 2002). The acronym CLEAR (see Figure 2) stands for the communication traits of the model.

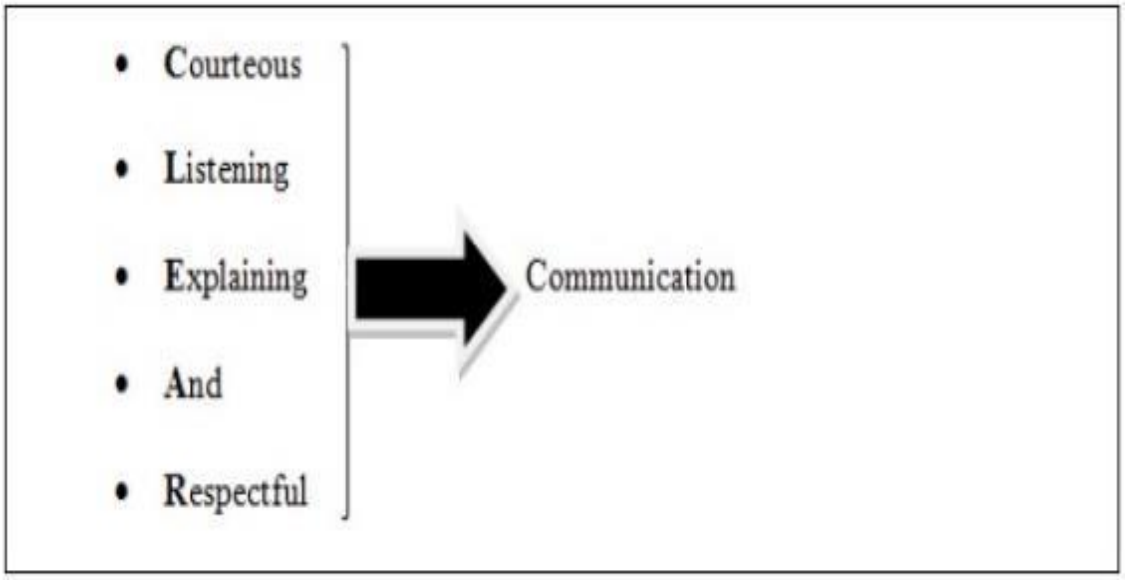

Figure 2: A depiction of the behavioral principles of the CLEAR Communication Model created by the nurse researcher.

Courtesy is the act of listening, conversing regularly, addressing the patient appropriately, asking open-ended questions, and thanking the patient (Yap, Koran, & Reidinger, 2012). *Listening* is the act of being present or being human (Taylor, 1994). *Explaining* things or ideas with greater clarity and understanding requires someone to convey the information verbally, communicate the key points, and avoid giving excessive information (Graham & Brookey, 2008). *Respect* is the act of acknowledging the other person (Gallagher (2007).

Patient satisfaction with nurse communication is the term used in health care to reflect patient's gratification with how well nurses communicate on a personal level (Bach & Grant, 2009). The conceptual definition of the term, patient satisfaction, is the feeling of contentment influenced by the overall quality and safety of care provided during hospitalization, as represented in the HCAHPS survey (Gardner, Woollett, Daly,

& Richardson, 2009). In this study, the use of specific indicators in the standardized HCAHPS questionnaire allowed the operationalization of the patient satisfaction with nurse communication (CMS, 2013; Press Ganey Associates, Inc., 2013c). In summary, the integrated frameworks of Watson's human caring and the CLEAR communication model were the basis for developing an effective nurse communication-training program for this study.

Definition of Terms

This section provides definitions and clarifications of the terms used in this research study. The definition of terms helps prevent confusion that can result when multiple terms and definitions to refer to concepts in the literature.

Caring. Caring is a science that involves a humanitarian, phenomena, human science orientation, and human caring processes and experiences (Watson, 1979, 2002). Caring in nursing is the provision of concern, support, and comfort, development of trust, and alleviation of stress taking into account cultural similarities and differences across individuals and populations (Leininger, 1981).

Communication. Communication is an information exchange process between people by means of speaking, writing, or using a common system of behavior or signs (Bach & Grant, 2009). Communication is a mutual way of sending and receiving messages with the use of verbal and nonverbal skills of communication (Conrad, 2014).

Courtesy. Courtesy is an etiquette-based communication of introducing oneself, explaining one's role in the care of a patient, asking open-ended questions, sitting down with the patient, and touching the patient (Johns Hopkins, 2013). Courtesy is the act of

listening, regularly conversing, addressing the patient appropriately, asking open-ended questions, and thanking the patient (Yap, Koran, & Reidinger, 2012).

Inpatient. Inpatient is the hospital status given to a patient starting when admitted to a hospital with a doctor's order based on medically necessary hospital care (CMS, 2013).

Listening. Listening is an active engagement in receiving and decoding messages that patients send; comprehending the message and evaluating its meaning (Sherman, 2009).

Patient satisfaction. Patient satisfaction is the fulfillment of the patient's expectations, norms, and ideals (Rathert, May, & Williams, 2011).

Respect. Respect is an element of a trusting relationship by accepting people, as they are (Bach & Grant, 2009).

Conceptual and Operational Definitions

The following conceptual and operational definitions, while providing guidance, also assisted in providing better understanding of the variables used for this study.

Inpatients' perceived levels of satisfaction with nurses' communication related to careful listening. The conceptual definition of the term, inpatients' perceived level of satisfaction with nurses' communication related to careful listening, is when there is a match between the expectations and perceptions of patients with the act of being present or being human (Taylor, 1994). Careful listening indicates the nurse's willingness to give personalized care by taking into account the individual patient needs and requests (Press Ganey Associates, Inc., 2010). The operational definition of the term, inpatients' perceived level of satisfaction with nurses' communication related to careful

listening, is the level of satisfaction with how often the nurses would listen carefully to patients as measured by question #2 of the HCAHPS survey (CMS, 2013). A Likert-type scale 1- never, 2 – sometimes, 3 – usually, and 4 – always measures this variable (CMS, 2013).

Inpatients' perceived levels of satisfaction with nurses' communication related to courtesy and respect. The conceptual definition of the term, inpatients' perceived level of satisfaction with nurses' communication related to courtesy and respect, is when there is a match between the patients' expectations with how frequent the nurses would treat them with respect and courtesy (Yap, Koran, & Reidinger, 2012). Courtesy is a set of rules for governing the interaction among people and is a way to demonstrate respect for other people (Press Ganey Associates, Inc., 2010).

Respect is a term used as acknowledgment of the other person, preservation, and engagement in nursing practice (Gallagher, 2007). The operational definition of the term, inpatient' perceived level of satisfaction with nurses' communication related to courtesy and respect, is the level of satisfaction with how often the nurses would treat inpatients with courtesy and respect as measured by question #1 of the HCAHPS survey (CMS, 2013). A Likert-type scale 1- never, 2 – sometimes, 3 – usually, and 4 – always measures this variable (CMS, 2013).

Inpatients' perceived levels of satisfaction with nurses' communication related to understandable explanations. The conceptual definition of the term, inpatients' perceived level of satisfaction with nurses' communication related to understandable explanations, is when there is a match between the expectations and perceptions of patients with how frequent nurses would explain things clearly during their

hospital stay (CMS, 2013). The operational definition of the term, inpatients' perceived level of satisfaction with nurses' communication related to understandable explanations, is the level of satisfaction with how often nurses would explain things clearly to patients as measured by question # 3 of the HCAHPS survey (CMS, 2013). A Likert-type scale 1- never, 2 - sometimes, 3 - usually, and 4 - always measures this variable (CMS, 2013).

Inpatients' perceived level of the overall rating of the hospital. The conceptual definition of the term, inpatients' perceived level of the overall rating of the hospital, is the patients' expressed level of satisfaction of their overall hospital experience (Studer et al., 2010). The operational definition of the term, inpatients' perceived level of the overall rating of the hospital, is the inpatients' perceived level of satisfaction with their overall hospital experience, as measured by question # 21 of the HCAHPS survey. This variable is measured by a rating scale from 0 - worst hospital to 10 - best hospital (CMS, 2013).

Nurse communication-training program. The conceptual definition of a nurse communication-training program is the training provided to nurses to learn and acquire communication skills necessary for carrying out nursing assessment, patient interviews, education, conveying treatment information, support, and promoting patient satisfaction (Bach & Grant, 2009). The focus of the communication educational program designed to train the nurse participants was the basic verbal and nonverbal skills and tactics on communication with courtesy and respect, careful listening, and providing understandable explanations.

Nurses' perceived level of verbal and nonverbal communication skills. The conceptual definition of the term, nurses' perceived level of verbal and nonverbal

communication skills, is the nurses' individual perception of their own verbal and nonverbal skills expressed through self-report (Johnston et al., 2012). The operational definition of the term, nurses' perceived level of verbal and nonverbal communication skills, is the level of quantitative self-reported data on nurses' verbal and nonverbal skills as measured by question numbers 1-9 for verbal and 10-18 for nonverbal of the Nurse Self-report Verbal and Nonverbal Communication Skills Survey (Johnston et al., 2012). A Likert-type scale 1-4 measures each item of this variable.

Assumptions

The following were the underlying assumptions of this study. The first assumption was that subjects would participate as expected to complete the study surveys as directed within a timely manner and answer the questions honestly. The second assumption was that nurse participants would participate fully and complete the training intervention. The third assumption was that consumers of health care could choose the facility to use for health care services because there were no regulations requiring health care consumers to use only the health care facility in their community.

Scope of the Study

The scope of the study involved the nurses and historical HCAHPS satisfaction scores from discharged inpatients from one large urban hospital in the southeastern United States. The purposes of this quantitative, pretest-posttest, quasi-experimental study were to examine the estimated impact of administering a nurse communication-training program on nurses' perceived level of verbal and nonverbal skills, perceived level of satisfaction of inpatients related to nurses' communication (courtesy and respect, careful listening, and understandable explanations), and inpatients' perceived level of the

overall hospital rating. An Information Sheet for Research/Informed Consent contained sufficient information to explain the study purpose to the nurse participants. The teaching methods used to present the communication-training program were PowerPoint presentations, discussions, role-plays, videotape presentations, and simulated clinical encounters. The learning goal, which was to improve the communication skills of the nurse participants, was the basis for developing the assessments materials.

The source for nurses' numerical data was the completed nurses' self-report questionnaire. One important step in the study was to compare the levels of nurses' perceptions of their verbal and nonverbal communication skills before and after the communication training. Each nurse participant self-coded the data collected by using a four-digit numerical number (avoiding 1-2-3-4) that was meaningful to the subject to prevent the identification of individual responses. The nurse participants wrote their individual numbers on an index card and kept the same numbers for their posttests. Each nurse wrote the self-coded number on the top right of the first page of each survey, so the researcher could compare the participant's self-reported verbal and nonverbal scores from pretest to posttest.

The study involved patients who were 18 years old or older at the time of admission, stayed overnight in the hospital as inpatient, discharged with non-psychiatric diagnosis, and alive at the time of discharge (CMS, 2013). CMS (2013) already excluded the data from patient respondents who met the exclusion criteria. Excluded in the study were patients younger than 18 years; prisoners; patients discharged to hospice, nursing homes, or skilled nursing facility; patients with international addresses; and 'no-publicity" patients (CMS, 2013). The source for patient data was the databank of Press

Ganey Associates. There was no protected health information collected for this research. The researcher compared the satisfaction scores with nurse communication from patient respondents for a total of 2 months prior to conducting the communication training and for a total of 2 months following completion of the training program. Appropriate statistical models were used in the analysis of results.

Limitations

In research, limitation refers to deficiency of adequate information on a given subject because of variables, which is beyond the researcher's control (Vogt, 2007). In this study, there were four limitations identified. The first limitation was the difficulty in searching research studies regarding a unified theoretical framework to teach communication skills to nurses. Limited availability of research studies on theoretical framework made it hard to determine if the chosen theoretical frameworks were effective and pertinent in determining the estimated impact of a communication-training program on the dependent variables. The dependent variables were (a) nurses' perceived level of verbal and nonverbal communication skills, (b) inpatients' perceived level of satisfaction related to nursing communication skills (courtesy and respect, careful listening, and understandable explanations), and (c) inpatients' perceived level of the overall hospital rating.

The second limitation was the risk of obtaining biased results associated with the use of a convenience sampling. Polit and Beck (2012) indicated that convenience sampling had many advantages, including quick formulation of theories. However, there is a risk in getting biased results and researchers are inclined to treat data as a precise representation of the public (Polit & Beck, 2012).

The third limitation was the time constraints in evaluating the real impact of implementing a communication-training program in the perceived level of satisfaction of inpatients related to communication by nurses. The lack of sufficient time limited the ability to perform a series of posttests and compare results such as 1, 3, 6, and 12 months after the training (Polit & Beck, 2012). The fourth limitation could have been a breach in confidentiality with participant information; however, the researcher maintained strict confidentiality.

Delimitations

Delimitations are the choices the researcher made that described the boundaries of the study (Polit & Beck, 2012). The delimitations for this study consisted of the pre-intervention and post-intervention periods and sample selection (Vogt, 2007). The pre-intervention period for the collection of HCAHPS satisfaction scores was the 2 months prior to implementation of the communication-training program and the post-intervention period as the 2 months after implementation. For the nurse participants, the pre-intervention period was defined as the time just before the training and the post-intervention period as the time immediately after the training. The other delimitation was to survey only the inpatient discharges during the study period within the boundaries of the selected inpatient units, and restricting the study to only one urban hospital in the southeastern United States.

Furthermore, only the nurses who met the inclusion criteria from two telemetry units of the hospital site participated in the study. Expanding the population of the study to include all inpatients and nurses in the entire healthcare system would have been desirable. However, this decision would have required coordination with multiple nurse

leaders and administrators from the other facilities of the healthcare system to train all the nurses, which was not possible with a limited time.

Summary

The purposes of the quantitative, one-group pretest-posttest, quasi-experimental study were to assess the estimated impact of the administration of a communication-training program on nurses' perceived level of verbal and nonverbal communication skills, perceived level of satisfaction of inpatients related to nurses' communication, and inpatients' perceived level of hospital rating. Chapter 1 contained information about the background of nurse-patient communication, patient satisfaction, and communication training for nurses. The researcher planned a study design to ascertain answering the research questions. The plan included the research problem, statement of purpose, research questions, and hypotheses. The statement of the problem indicated the need to examine the estimated impact of a communication-training program on nurses' perception of their own verbal and nonverbal communication skills, inpatients' perceived level of satisfaction with nurse communication, and their perception of the overall rating of the hospital. The purpose statement delineated the intentions of the research study and its contribution toward nursing knowledge and leadership in health care settings. The nature of the study was a quantitative method based on a single-group, pretest-posttest quasi-experimental design. The instruments to collect data were the Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS) for the nurse participants and HCAHPS survey for the patients.

The results of this research provided evidence to empower nurses to lead the way as team leaders in an effective and collaborative communication process. Findings from

a study by Studer et al. (2010) showed that effective communication is an essential element of safe and quality health care. Patients were more satisfied and cooperative when health care professionals explained their care plans clearly (Studer et al. (2010). Based on the findings, the goals for implementing a nurse communication-training program were to increase the efficiency of the organization, the overall rating of the hospital, and the patient satisfaction with nurse communication by improving the communication skills of the nurse participants.

The American Nurses Association (ANA) (2014) considered patient satisfaction with nursing care as one of the nursing-sensitive quality indicators. This indicator measures the perception of the patient of the hospital experience related to satisfaction with nursing care. CMS (2014b) noted that nurse communication is an important component in patient care and one of the most effective strategies in improving patient satisfaction related to patient experience (CMS, 2014b). Healthcare providers, including nurses, should provide information to improve patients' understanding of the care they receive during their hospital stay. Communication skills training and follow-up sessions (if needed) could be time-consuming but they are important in the development of nurses' confidence and competence in providing psychological support to patients and families.

The remainder of this document further described this research study. Chapter 2 includes a review of the relevant literature, outlines of examined communication skills training, and the frameworks that guided this study. Chapter 3 includes the outlines the research design and methodology. Chapter 4 reports the study results, and chapter 5 provides a discussion of the study findings.

Chapter 2

Literature Review

The purposes of this quantitative, quasi-experimental study were to examine the estimated impact of a communication-training program on the level of nurses' perception of their verbal and nonverbal communication skills, perceived level of satisfaction of inpatients with nurses' communication, and inpatients' perceived level of the overall rating of the hospital. A background on patient satisfaction, nurse-patient communication, and the importance of the hospital's role in educating nurses provided the context of this study with emphasis on communication-training program. Interpersonal communication was a broad area touching upon caring theory, communications skills, and communication skills training.

Many studies showed that patient satisfaction was an ongoing concern in healthcare because of the rise in pay-for-performance and the public reporting of the HCAHPS results (Kutney-Lee et al., 2009; Pres Ganey Associates, 2013a, b; Studer Group, 2007). Findings from the investigations of Press Ganey Associates (2013b) and Studer Group (2007) revealed that patient satisfaction with nurse communication was an important means to evaluate nurses' behavior and their communication performance. CMS (2013) and Wolosin, Ayala, and Fulton (2012) explained that the purpose of the HCAHPS survey was to evaluate the patients' experience of care and feeling of satisfaction with their experience, which influences directly patient outcomes (CMS, 2013; Wolosin et al., 2012).

Researchers found a high correlation between patient satisfaction scores and patient-safety events and clinical outcomes, so improving the patient experience was a

huge focus in the healthcare industry (CMS, 2013; Dahlgaard, Pettersen, & Dahlgaard-Park, 2011; Press Ganey Associates, Inc., 2013b). With regard to high quality and lean (creating more value with fewer resources for customers) health care, Dahlgaard et al. (2011) discussed the development of a system to assess and improve healthcare organizations. The components of the lean system were (a) a framework for assessing, diagnosing, measuring, and improving healthcare organizations, (b) methodology for data collection, analysis, and improving areas of prioritization, and (c) an index for measuring the level of excellence, innovativeness, learning, and lean health care (Dahlgaard et al., 2011). Findings from a study by Krimshtein et al. (2011) revealed the relationships between effective communication, patient satisfaction, and the avoidance of medical errors. Results from the studies of Farahani, Sahragard, Carroll, and Mohammadi (2011) and Krimshtein et al. (2011) noted that effective communication was a vital component of nursing care and quality nursing practice. Berry (2009) and Dahlgaard et al. (2011) found in their research the association between effective communication and optimal care and treatment.

In the late twentieth century there were very few studies conducted to investigate how nurses and other health care professionals might improve their communication skills (Patak et al., 2009; Smith & Pressman, 2010). Important components of care included effective communication and collaboration (Sargeant, MacLeod, & Myrray, 2011; Mullan & Kothe, 2010). On many occasions, communication needs of patients were inappropriately addressed (Garret, Dickson, & Whelan, 2008; Patak et al., 2009; Ramirez, Engel, & Tang, 2008). Downey and Happ (2013) and Krimshtein et al. (2011) noted the importance of skilled communication in maintaining sensitive and effective

health care relationships among the providers, patients, and their families. For example, studies showed the association between good nurse practices and effective communication with patients' adherence to treatments, recovery, and patient satisfaction (Thompson & McCabe, 2012; Zolnierek & DiMatteo, 2009). Findings in many studies showed that effective communication skills are essential in achieving healing and treatment processes because they help in the establishment of a good nurse-patient relationship (Downey & Happ, 2013; Krimshtein et al., 2011; Thompson & McCabe, 2012).

The focus in the literature review was mainly to cover patient satisfaction, basic communication skills, and communication skills training in patient care. Findings of a study by Meade et al. (2006) showed that nursing communication, quality of care, and how nurses responded to patients' requests were the bases of how patients rated their satisfaction; therefore, communication skills and training related to nursing care was an important topic in this literature review. Polit and Beck (2012) explained that practical experiences, critical appraisal of the literature, gaps in the literature, and interest in untested theory influenced the development of research ideas, such as in this study.

Search Criteria

The literature review focused on the keywords including patient satisfaction, basic communication skills of health care professionals (e.g. nurses, physicians, pharmacists, nurse practitioners, and undergraduate nurses), verbal and nonverbal communication skills, communication skills in nursing care, and evaluation of communication skills training. The topics researched provided a foundation for the statement of the problem and research questions under evaluation. This literature search includes journals, peer-

reviewed articles, founding theorists, and empirical research based on the quality and range of the materials. Table 1 provides details of the literature review searches.

Table 1

Literature Review Sources

Type of Source	Peer Reviewed Articles	Books	Dissertations	Edited Texts	Stand Alone Websites
Patient satisfaction	45	6	0	4	8
Value-based purchasing	11	3	0	3	5
Communication	85	4	0	8	9
Communication training	114	11	1	8	9
Human caring theory	11	2	0	1	11
Totals	266	26	1	24	42

Searches of relevant publications in English language only revealed scholarly articles to support existing research on the impact of communication training programs on nurses' communication skills and patient satisfaction. The theoretical texts were from online bookstores, such as Barnes and Noble, and Amazon, under relevant searches on communication, respect, courtesy, and listening. Included in the searches were titles within the past 15 years, and germinal works dated 1970-2013.

Resources for titles included University of Phoenix library databases, journals, and various online databases, such as EBSCOHost, ProQuest, ProQuest dissertations, and theses, communication abstracts, dissertation abstracts, the Cumulative Index to Nursing and Allied Health (CINAHL), Google Scholar, and PsycARTICLES/PsycBooks. Other online databases examined for scholarly research articles were MEDLINE and PubMed. The literature review also involved evaluating information found using other documents through acquisition of reference materials on government sites.

Patient satisfaction. In the United Sates, patient satisfaction in the hospital setting was an ongoing concern (Downey & Happ, 2013; Wolosin et al., 2012). Some of the challenges of healthcare executives was anticipating and exceeding patient needs. The Centers for Medicare and Medicaid Services (CMS) and the Agency for Healthcare Research and Quality developed and intended to implement the HCAHPS initiative nationally in 2006 (CMS, 2013). The goal was to collect data to measure the perspectives of patients on hospital care by using a standardized survey method and tool (CMS, 2013). Studer Group (2005) called the survey tool patients' perception of the core clinical and operational competencies so the staff could relate to it better.

Patient satisfaction defined. In research about patient experience, there was a lack of attention to the meaning of patient satisfaction (Rathert et al., 2011). In 1982, Linder-Pelz used content analysis to define patient satisfaction. Linder-Pelz (1982) identified the following five social-psychological variables as probable satisfaction determinants in health care: a) *occurrences* - events that actually take place, b) *value* - an attribute of a health care encounter, c) *expectations* - perceived probable outcome of the encounter, d) *interpersonal comparisons* -individual's rating of the health care encounter, and e) *entitlement* - acceptable grounds for seeking a specific outcome. Linder-Pelz (1982) argued that satisfaction is an expression of an attitude, such as a positive assessment of the scopes of health care by the patient.

More recently, Rathert et al. (2011) defined patient satisfaction as a fulfillment of the ideals, expectations, and norms of the patient. The basis of this definition was from the expectation model of Sofaer and Firminger, which proposed that patients made comparisons of their health care experiences with their ideals, perceived expectations,

and norms (Rathert et al., 2011). Findings from a study by Poot (2009) on doctor-patient relationship in dermatology showed that patient satisfaction did not only depend on the diagnosis, but also on the ability of the doctor to explain the probable cause of the illness. Studer Group (2007) defined patient satisfaction as an emotional or affective response of the patient to his or her cognitive assessment of the provider during a health care consumption experience. The assumption was patients combined their experiences in health care and arrived at their satisfaction in the same way; however, no research findings supported this notion (Otani, Waterman, & Dunagan, 2012).

For many years in the United States, healthcare was changing rapidly and one important emphasis to the changes was about patient satisfaction (Rathert et al., 2011; Wolosin, Ayala, & Fulton, 2012). Results from a study by Rathert et al., 2011) showed serious concerns on patient satisfaction from hospital administrators because the perspectives of patients about their hospital care partly drive the reimbursements for the hospital systems. Discoveries from studies by CMS (2014a) and Kutney-Lee et al. (2009) indicated that besides the rise in pay-for-performance, patient satisfaction was driving the changes in healthcare because the public learned the information released to through the HCAHPS. Moreover, the Patient Protection and Affordable Care Act obligated healthcare providers to improve the efficiency, quality, and the overall health care value they provide, while meeting standardized metrics (Press Ganey Associates, Inc., 2013b; U.S. Department of Health & Human Services, 2014). Thus, strategic organizational planning and healthcare quality management integrated the component of patient satisfaction as a key outcome of care (Press Ganey Associates, Inc., 2013b).

Patient satisfaction and nursing care. One of the strongest and consistent predictors of patient satisfaction with the overall healthcare experience was the satisfaction with nursing care (Studer Group, 2007). For example, Wagner, Bear, and Davidson (2011) examined the relationship between the interaction of new mothers with nurses and their satisfaction with nursing care and postpartum discharge education. The investigators used a two-group quasi-experimental posttest design to determine the effects of two methods of postpartum discharge education on patient satisfaction (Wagner et al., 2011). The results showed no difference in satisfaction level between new mothers instructed with the traditional postpartum discharge teaching and those taught with demonstration and return demonstration technique (Wagner et al., 2011). Rather, the individualized care that nurses provided to patients based on their expressed needs increased patient satisfaction (Wagner et al., 2011).

Downey and Happ (2013) confirmed how influential nursing care was with patient satisfaction when they noted that professional nurses provided the greatest proportions of health services. This opportunity of providing health care afforded the nurses with a good and significant position to impact patient satisfaction (Downey & Happ, 2013). The primary nurse's working experience also influenced patient satisfaction (Downey & Happ, 2013).

High nurse-staffing levels and patient experience. In the United States, patients' perceptions of their hospital experiences were not well known, but Jha, Orav, and Epstein (2008) found in their study the association between very good health care quality and excellent patient experience with high nurse-staffing levels. Outcomes from a study by Downey and Happ (2013) showed that during patient hospital stays, nurses

were responsible for continuous care, so higher staffing levels supported an optimal patient experience. Improving nurses' staffing levels and their work environments, and compassion toward the patients, their families, and friends might also provide a better hospital experience to patients (Kutney-Lee et al., 2009). In addition, there were times when nurses verbalized dissatisfaction with a multitude of tasks including dealing with nursing students and indicated they were too busy to teach (Kutney-Lee et al., 2009).

Nurse communication and patient satisfaction. Healthcare leaders confronted multiple challenges created by attempts to control costs, enhance productivity and profitability, and maintain quality outcomes (O'Leary et al., 2013). Hospitals with high scores on communication with nurses scored higher in the overall hospital rating and in recommending the hospital (CMS, 2013; O'Leary et al., 2013). Studer Group (2007) corroborated that nursing care, effective communication, and good staffing levels highly correlated with the overall patient satisfaction as indicated by research and pilot data from survey companies.

Patient Hospital Experience

The passage of the Patient Protection and Affordable Care Act required providers to increase the efficiency, quality, and overall value of health care, while meeting standard metrics (CMS, 2013; Press Ganey Associates, Inc., 2013c). Reforms in health care based on care coordination, effectiveness comparison, consumerism, and health information through technology helped to health care organizations realize cost savings (Keckley & Bigalke, 2012). Measuring the patients' perceptions of their hospital experiences was common and a variety of such measurements assisted to assess the quality of healthcare services (Hudon et al., 2011; O'Leary et al., 2013; Wolosin et al.,

2012). Patients dissatisfied with their care affected hospital reimbursements, and contributed to negative patient outcomes (O'Leary et al., 2013; Wolosin et al., 2012).

Otani et al. (2012) investigated how the health conditions of patients influenced the way they combined their healthcare experiences by using two models, the overall quality of care and the willingness to recommend to other. The severity of illness of patients had a negative effect on the care provided by the physicians, staff, and the patients' food (Otani et al., 2012). The willingness to recommend a model revealed six attributes: admission process, the care from nurses, care from physicians, and care from the staff, the food, and the room (Otani et al., 2012). The care from physicians became more important to more seriously ill patients and the care provided by the staff became less important (Otani et al., 2012). The patients who were seriously ill were also more likely to combine different attributes proportionate with the willingness to recommend (Otani et al., 2012). In both models, Otani et al. (2012) observed a consistent influence for both nurses' and staffs' care (Otani et al. 2012).

Study findings from de Wet, Johnson, Mash, McConnachie, and Bowie (2012) indicated the involvement of patient safety in building a positive and strong safety culture in organizations. An integral part of this process was measuring the individual perceptions of safety (de Wet et al., 2012). As an outcome of care, patient satisfaction became a critical component of healthcare quality management and strategic organizational planning (CMS, 2013). A great emphasis on improving communication skills was apparent because across the health care system the nurse and physician communication with patients had the greatest influence on patient satisfaction (Wolosin et al., 2012).

Patient satisfaction was a high priority worldwide in healthcare organizations, so the challenges for leaders were about patient satisfaction initiatives and the management of the determinants of patient satisfaction (Schoenfelder, Klewer, & Kugler, 2011). Schoenfelder et al. (2011) measured the global patient satisfaction in Germany by random sampling, using a single item question through a self-administered, post-visit questionnaire. Eight thousand four hundred twenty-eight patients in 39 hospitals participated in the study. The investigators measured the attributes of medical aspects using 12 items, service performance using three items, and the expectations of patients on different levels using 12 items (Schoenfelder et al., 2011). The findings showed 10 determinants of global patient satisfaction, and overall, the most significant predictor was the outcome of treatment, followed by nursing kindness (Schoenfelder et al., 2011). The study results also revealed that the information patients received pertaining to their treatment did not have a huge impact on their satisfaction (Schoenfelder et al., 2011).

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey

The HCAHPS survey is a data collection instrument representing the patients' perspectives of quality of care and their hospital experience. There are eight domains identified affecting patient satisfaction in the HCAHPS survey (CMS, 2013). The domains include (a) nursing communication, (b) doctor communication, (c) responsiveness of staff, (d) pain management, (e) communication about medications, (f) discharge information, (g) cleanliness and quietness of the hospital, and (h) overall hospital rating (CMS, 2013; Rathert et al., 2011). In a Press Ganey Associates' study, the results showed that communication with nurses was the "rising tide measure" among the

eight HCAHPS dimensions of care (Press Ganey Associates, Inc., 2013c). The study indicated that as the score of the rising tide measure (communication with nurses) increased, the scores of the identified associated measures (hospital staff's responsiveness, management of pain, communication about medication, and hospital's overall rating) were likely to increase as well (Press Ganey Associates, Inc., 2013c). This study findings offered valuable insights on how to improve and implement strategic initiatives in hospitals that might result in fast and far-reaching positive changes (Press Ganey Associates, Inc., 2013c). In the cluster mentioned above, the leader of the other four measures (staff's responsiveness, management of pain, communication about medication, and the overall rating of the hospital) was communication with nurses. This association of measures means that an increase in communication with nurses' score from improvement efforts would likely show related improvements in performance in the other four measures in the group (Press Ganey Associates, Inc., 2013c).

Throughout the development of the HCAHPS survey, the Centers for Medicare and Medicaid Services (CMS) incorporated public input through solicitation; thus, CMS made several iterations to the methodology and the HCAHPS questionnaire (CMS, 2013). The first version was a 66-item questionnaire tested in a three-state pilot study (CMS, 2013). Based on the pilot study results and the nearly 150 comments produced by the notice, CMS condensed the survey to 32 items (CMS, 2013). Provider groups, hospital associations, consumers, and hospital survey vendors also sent nearly 110 responses to the notice to CMS (CMS, 2013).

In December 2003, CMS published the HCAHPS instrument containing the 32-item version for public comment (CMS, 2013). This version generated nearly 600

comments about sampling, implementation procedures, response rate, cost issues, exclusion categories, and other concerns (CMS, 2013). According to CMS (2013), further reduction was necessary to the HCAHPS questionnaire because of the comments received by CMS and the psychometric data analysis from the 3-state pilot study. Assessment of the validity and reliability of survey instruments was important to ensure the results were accurate and generally applicable (Drain & Alexander, 2004; Polit & Beck, 2012).

Creation of a sample frame. In each month, hospitals/survey vendors of HCAHPS participants generated accurate and valid data files of the sample frame (CMS, 2013). These data files contained all administrative information of eligible patients (CMS, 2013). As per Centers for Medicare and Medicaid Services recommendation, the staff from the hospital site submitted its entire discharge list of patients to Press Ganey Associates, excluding those patients with "No-publicity" request (CMS, 2013).

Before generating the sample frame, Press Ganey Associates applied the "eligibility criteria, removed exclusions, and performed de-duplication" (CMS, 2013, p. 50). For a specific month, the sample frame contained all qualified discharges from the hospital between the first and last day of the month (CMS, 2013). The address in the sample frame included the address in the medical record (CMS, 2013). Patients with missing telephone numbers or address in the medical record remained in the sample frame, and Press Ganey Associates retained the sample frame for 3 years (CMS, 2013).

Calculating the sample size in a rolling four-quarter period. The sample size determined through power analysis is essential to enhance the validity of study findings (Polit & Beck, 2012). In a rolling four-quarter period, participating hospitals would

submit at least 300 completed HCAHPS surveys, unless obtaining the 300 completed surveys was not possible because the hospital was too small (CMS, 2013). Too small sample size could result to a type II error, which is the failure to reject a false null hypothesis (Polit & Beck, 2012). Over the 12-month reporting period, the survey vendor or hospital would collect the monthly data from sampled patients and aggregate data on a quarterly basis to create a rolling 4-quarter data file (CMS, 2013).

Sampling procedure. The staff from CMS (2013) described sampling for HCAHPS as a basic procedure performed monthly (CMS, 2013). The hospital/survey vendor would generate a random sample of all eligible discharges from the entire month (CMS, 2013). When the hospital/survey vendor conducted continuous sampling, they maintained the same sampling ratio and the same sampling timeframe throughout the month (CMS, 2013). The basis of the statistical precision of the publicly reported hospital rating was a reliability criterion for the required number of completed surveys (CMS, 2013). In short, a higher "signal to noise" ratio in data meant higher reliability (CMS, 2013). For most composites and HCAHPS global items, the reliability target was 0.8 or higher, which meant that over the 12-month reporting period, hospitals obtained at least 300 completed HCAHPS surveys (CMS, 2013).

MS-DRG codes and service line categories. The three service line categories provided included maternity care, medical, or surgical (CMS, 2013). Each patient received assignment to one of the service lines if eligible to take the survey (CMS, 2013). The patient should not take the survey if determined ineligible after drawing the sample but before administration of the survey, and should remain in the sample (CMS, 2013).

Questionnaire and related materials production. The HCAHPS questionnaires provided to survey vendors or hospitals are in English (see Appendix D), Spanish, Chinese, Russian, and Vietnamese (CMS, 2013). CMS (2013) developed samples of the initial (see Appendix E) and follow-up cover letters in English (see Appendix F), and allow no other translations to the cover letters or questionnaires of the HCAHPS by hospitals or survey vendors (CMS, 2013). The OMB Paperwork Reduction Act (see Appendix G) specifically appears on the questionnaire's front page (CMS, 2013). Only the sampled patient would complete the survey, and this language in the questionnaire reinforces this requirement (CMS, 2013).

Communication

The term communication has varied meanings. For example, Bach and Grant (2009) defined communication as the act of exchanging information between people by means of speaking, writing, or using a common system of behavior or signs. Pearson, Nelson, Titsworth, and Harter (2003) described communication as the process of using a common system of symbols, behaviors, or signs by which the meaning differed between two or more individuals. Moreover, Balzer Riley (2015) defined communication as the act of transferring and receiving messages that occurred over time between two or more individuals. The exchange of meaning involved choices about many aspects of the message that include verbal, nonverbal, and behavioral aspect (Pearson et al., 2003). Patak et al. (2009) described communication as a basic need and a right of all human beings.

Schindler, Ruoppolo, and Barillari (2010) defined communication as a process involving a complex behavior because two or more individuals exchange messages by

using both physical and mental events. A communication disorder like impairment in sending or receiving a message could result to unnecessary errors (Schindler et al., 2010). With effective patient communication, patients understood the strategies better to prevent illnesses and manage their chronic conditions (Schindler et al., 2010).

Basic communication skills. A review of several important concepts helped to attain a clear and consistent understanding of communication skills. Such concepts include communication, its components, effective communication, ineffective communication, verbal and nonverbal communication, and communication competence. A clear, collaborative, and consistent understanding of the basic communication skills helped create an environment for individuals to speak up and express their concerns (Farahani et al., 2011). Messages from both verbal and nonverbal sources conveyed meanings when passed between communicators (Farahani et al., 2011).

Communication and components. Pearson et al. (2003) listed the components of communication that include people, message, channel, feedback, code, encoding and decoding, and noise. People are the source that initiated the message and the receiver that received the message (Pearson et al., 2003). Message is the verbal and nonverbal thought that a person wants to communicate to the receiver (Pearson et al., 2003). Channel is the method by which a message travels from the source (Pearson et al., 2003). The term, feedback, is a verbal and nonverbal response of the receiver to the source of the message (Pearson et al., 2003). A code is composed of symbols arranged systematically to make senses in the mind of another person (Pearson et al., 2003). Encoding is setting an idea into a code, and decoding is conveying meaning to that thought (Pearson et al., 2003). Noise is interference in the encoding and decoding processes (Pearson et al.,

2003). Enhancements of information flow through pace and the quality of information helps promote understanding and coordination of activities, and the establishment of personal connection, which is important for open, clear, and productive communication (Pearson et al., 2003).

Nurses communicate with patients in their daily practice verbally and nonverbally through speech, activity, action, behavior, silence, passivity, inactivity, and positivity (Bach & Grant, 2009). Patients perceive the ways nurses communicate as being caring or uncaring, which make them feel satisfied or dissatisfied with the quality of nursing practice (Mullan & Kothe, 2010). Effective communication is an important element of nursing, and it is one of the most important determinants of nursing quality (Mullan & Kothe, 2010).

Nonverbal communication. Findings from a study by Essers et al. (2013) showed that all communications took place within the context, and considered context factors as 'cues' rather than noise. In a study by Uitterhoeve et al. (2009), the results revealed that patients appreciated nurses who responded to cue-responding behavior, such as mood and coping behaviors. For example, during an interview, a touch, such as placing a hand lightly on a shoulder or holding a patient's hand might be used as a means of reassuring the patient, show empathy, indicate warmth, or as a sign of concern and care (Bach & Grant, 2009). Outcomes from studies showed that nonverbal communication included proxemics, eye contact, appearance, gestures, and facial expressions, which vary from one culture to another (Dyche, 2007; Griffith et al., 2003; le Roux, 2002). Before deciding whether it was, or it was not appropriate to use touch to communicate, and the extent to which touching was permissible, Bach and Grant (2009)

explained to consider the patient's communication cues related to culture first to prevent any misinterpretation and misunderstanding. Specific nonverbal research contributed valuable insight in the context of healthcare related to interpersonal skills (Bach & Grant, 2009). Bach and Grant (2009) suggested the importance of evaluating the patient's body language orientation, gestures, and language pauses to establish rapport between patient and health care provider in terms of intercultural communication.

In 2013, Levine and Ambady studied the role of nonverbal behavior in health care racial disparities, most specifically in the doctor-patient interaction. Levine and Ambady (2013) focused on the ways in which the race of patients could influence a doctor's nonverbal behavior, and the doctors' struggle in understanding precisely the non-verbal communication of the non-white patients. Levine and Ambady (2013) also assessed the implications of the two lines of research for the doctor-patient relationship and the health of the patient. The results revealed that white doctors were more likely to perform and respond to minority patients in ways associated with worse health outcomes (Levine & Ambady, 2013). Most training programs lacked the components of nonverbal communication behaviors (Kruijever et al., 2000a). Part of the training included nonverbal behaviors. Examples included (a) the use of appropriate touch, (b) body orientation, (c) smiling, (d) conscious listening, and (f) facial expressiveness (Kruijever et al., 2000a).

Verbal communication. Grover (2005) and le Roux (2002) defined verbal communication as the act of giving information, and provided active listening such as paraphrasing and clarifying to ensure understanding as an effective technique of verbal communication. The focus of research on verbal communication was frequently on the

use of jargons, medical terms, and acronyms (Street, 2003). Verbal communication is the most common form of communication, performed through using language; however, healthy communication is not only using sentences or words (Kucukbezirci, 2013). Caregivers' self-evaluation of less jargon use shows a discrepancy from patients' perception of this practice as supported by research; yet, the use of technical language by healthcare providers was associated with low patient satisfaction (Street, 2003). Street (2003) explored the essential skills of effective communication in the healthcare setting; and provided a conceptual framework to clarify factors that affect provider-patient communication encounters. He advocated the traits of a patient-centered approach because they frequently determine the patients' compliance in treatment and future health outcomes (Street, 2003). The traits of a patient-centered approach were occasions where clinicians did not dominate communications; the emphases were interpersonal sensitivity, partnership approach, caring attitude, information giving, and the recognition of nonverbal signs (Street, 2003). Communication behaviors also occur at work. Keyton et al (2013) found that there were four factors of verbal communication behaviors in the workplace evaluated for their effectiveness. Those factors were sharing of information, maintenance of relationships, expressing of negative emotions, and behaviors related to organizing communication (Keyton et al., 2013). Patient satisfaction increased when health team members provided clear information and empathized with the patient (Thiedke, 2007).

Nurse-Patient Communication

Bach and Grant (2009) noted the constant use of communication in nursing practice between the nurse and the patient, the family of the patient, supervisors,

coworkers, and many others. Communication in the healthcare setting provided a way to share information, facilitate the well-being of patients, and alleviate patients' anxieties (Bach & Grant, 2009). Communication offered a means to explain patients' options for treatment and care, and to promote understanding of patients' responses to health problems (Bach & Grant, 2009).

Findings from a study by Wienclaw (2014) discovered that cultural diversity made communication in the workplace interesting, since each individual comes with his or her cultures. Culture is the beliefs, norms, assumptions, and values, held and shared consciously or unconsciously by a group of people (Wienclaw, 2014). In diverse workplaces, Wienclaw, (2014) explained that cultures often collide, causing miscommunications. The educators from the hospital site for this study offer diversity-training courses regularly to improve communication among staff from different cultures.

Roberts (2013) warned that communication is such a basic human activity so people take it for granted easily. At its most basic level, communication is the transmission and exchange of information (Roberts, 2013). Communication in the nursing profession can become complicated, leading to sending or receiving incorrect messages (Roberts, 2013). This complexity requires basic knowledge of the key components of the communication process; how to improve communication skills, and how to deal with the problems created by errors in communication (Roberts, 2013).

Parker and Ratzan (2010) discussed how critical communication was as an element in health literacy because they observed that effective communication contributed to the success in navigating the growing demands and complexity of healthcare. In the nurse-patient communication process, patients have significant

contributions such as communicating their needs and feelings. Parker and Ratzan (2010) observed in their study that problems arose if the nurse blocked the patients' efforts to communicate their feelings and needs. Communication is an essential instrument in clinical practice. Roberts (2013) emphasized the necessity of integrating clinical reasoning through communication. Patients and nurses establish relationships and attempt to achieve the goals for management, therapy, and recovery through communication (Roberts, 2013). Communication involves the complex integration of verbal, cultural, social, and behavioral elements as observed when someone is giving information, asking questions, and listening actively (Roberts, 2013). Roberts (2013) also stated that the ability to communicate effectively is the basis for high-quality care, and integrating the communication with the physical and more technical aspects of care.

The Institute of Medicine (2009), in its quest for high-quality care always put the consumer first and it recognized the importance of exploring the challenges of how to improve the ways of communication, including communication technology for populations with low health literacy. In healthcare, practicing effective communication is an essential component of safe and quality care (Institute of Medicine, 2009). However, many studies continue to report concerns on the quality of how nurses interact and communicate with patients and their families (Jones, 2007; Gaillard, Shattell, & Thomas, 2009; Xie, Ding, Wang, & Liu, 2013).

Effective Communication and Collaboration

Numerous researchers described effective communication as essential in providing optimal care and treatment in health care (Hemsley, Balandin, & Worrall, 2011; Norgaard, Ammentorp, Kyvik, & Kofoed, 2012). Roberts (2013) agreed with

many others who argued that effective communication was fundamental to good nursing care. Charlton, Deaning, Berry, and Johnson (2008) further reinforced the results of this research when they found an improvement in patient outcomes, such as better patient health and higher patient satisfaction. Adherence to treatment options resulted from using a patient-centered approach and effective and collaborative communication and interactions between nurses and patients (Chalrton et al., 2008).

The results from a number of studies indicated that effective communication and collaboration among health professionals were vital components of care (Mullan & Kothe, 2010; Sargeant et al., 2011), most specifically for patients with altered mental status (Patak et al., 2009). Downey and Happ (2013) and Krimshtein et al. (2011) reiterated the importance of skilled and improved communications for nurses to maintain their sensitive and effective relationships with the other members of the healthcare team, caretakers, and most especially with the patients. The results of other studies reflected the link between communication skills and nurses' adherence and recovery practices and sense of safety and protection, as well as patients' satisfaction with the overall care (McCabe & Timmins, 2006; Thompson & McCabe, 2012; Zolnierek & DiMatteo, 2009). Conclusions from a study by Thompson and McCabe (2012) disclosed that effective communication skill was essential to achieve treatment and healing because it helped to build and maintain good patient relationships.

Factors and Hospital Processes Influencing Effective Communication

Findings from a study by Baer and Weinstein (2013) revealed that effective communication with patients is a fundamental component of a good nurse-patient relationship; however, White (2003) noted that some nurses failed to recognize its

importance. Otani et al. (2012) observed that effective communication was a crucial component of patient care and it could influence patient health conditions, and patient satisfaction. The daily routine work of nurses involved nurse-patient communication, such as nursing assessment, the implementation of nursing care plan, psychological care, and patient education. Ignorance of the importance of effective communication in a nurse-patient relationship led to making assumptions (Otani et al., 2012). Parents found nurses to be more interpersonal and accommodative when they possessed effective communication (Jones et al., 2007).

Intercultural communication. In 2014, findings from Xue's study indicated the cultivation of competence in intercultural communication through culture teaching (Xue, 2014). However, Xue (2014) explained that linguistic knowledge alone was not enough to guarantee the success of interactions with native speakers in a cross-cultural communication. Xue (2014) reiterated the difficulty to learn a foreign language without addressing the culture of the community. Xue (2014) added that cultural mistakes inclined to create ill feelings and misjudgment, so they were worse than linguistic ones. Tailoring the discussion to different age groups in terms of the message, framing, and channel demonstrated effective communication (Lucas & McAllister, 2014). In talking to the generations, findings from a study by Lucas and McAllister (2014) revealed that various age groups preferred practical and effective communication programs on discharge plans targeted by generational category.

Handover at the bedside. Wilson (2011) reviewed the findings from a simplified handover process audit from an emergency department in Australia and found that only when the staff performed their handover next to the patients that they

communicated all aspects of patient care. This practice, giving change-of-shift report at the bedside reduced potential medical issues related to the high volume of patients, resulting in better patient experience, and more satisfied customers (Wilson, 2011).

Approaches to Communication

Communication requires a variety of approaches to become effective. For example, McCabe (2004) indicated that invoking silence communicated a message requiring interpretation to find its meaning. McCabe (2004) suggested after exploring the nurse-patient communication that using a patient-centered approach might improve nurse communication with patients. Patient-centered communication eased the worries of patients, made them more cooperative, and it helped promote satisfaction and safe care (Gilbert & Hayes, 2009; McCabe, 2004). Chant, Jenkinson, Randle, and Russell (2002a) observed that satisfied patients followed and completed their treatment protocols more readily. Chant et al. (2002a) noted the link between skillful nursing communication with patient satisfaction, adherence to treatment plan, and recovery.

In healthcare situations, the complexities of communication increased by factors, such as hospital policy, hierarchies of responsibilities, physical discomforts, environment, fear, sadness, and anxiety (Wienclaw, 2014). The demanding and stressful circumstances inherent in healthcare interactions involving patients, peers, and caretakers affected the ability to communicate effectively (Wienclaw, 2014). Verbal and nonverbal communications were equally and critically as important in cross-cultural competence; therefore, nurses should take time to learn the details of how to communicate effectively with patients (Wienclaw, 2014).

Nurse-patient communication skills. How nurses communicated with patients influenced the quality of nursing care because nursing care includes a wide range of attitudes and behaviors (Tay et al., 2011). Tay et al. (2011) conducted a systematic review to find the most important factors influencing the effectiveness of communication between the nurses and adult cancer patients. Tay et al. (2011) found the characteristics of nurses and patients as the most influential, and not so much by the environment.

Nurse-led ward round. Catangui and Slark (2012) used a weekly nurse-led ward round in an acute care setting to identify the care needed for the stroke patients. A nurse-led round was very effective in resolving many patient issues and concerns proactively (Catangui & Slark, 2012). A nurse-led round improved the nurse-patient communication, and patients participated more with their plan of care (Catangui & Slark, 2012). Consequently patient safety and service quality improved, and stroke complications were detected early (Catangui & Slark, 2012).

Literature suggests that patient-centered care model endorses good experiences with communication (McCarthy & Blumenthal, 2006; Studer Group, 2005). In a patient-centered care model, McCarthy and Blumenthal (2006) suggested to invite and encourage patients to negotiate before making decisions. Other steps to facilitate communication were multidisciplinary rounds, change-of shift bedside report, and hourly rounding (McCarthy & Blumenthal, 2006). Conducting change-of-shift reports at the bedside and hourly rounding helped to promote courtesy, effective communication, clear explanation, and responsiveness to patients (Studer Group, 2005).

The purpose of conducting hourly rounding is to promote nurse-patient communication. Gardner, Woollett, Daly, and Richardson (2009) tested the estimated

impact of comfort hourly rounding on patient satisfaction and practice environment by using a quasi-experimental pretest-posttest design. Gardner et al. (2009) observed no significant changes on patient satisfaction; however, they found three of the five-practice environment subscales to have significant changes, which included process, instrument, and design.

Multidisciplinary round. Amin, Grewcock, Andrews, and Halligan, (2012) noted in the results of their study that effective and consistent communication was a key component of safety and reliability in patient care. Effective communication among health professionals in clinical practice was important to ensuring quality care (Chaboyer, McMurray, & Wallis, 2010). Health care workers used multidisciplinary round to communicate, make decisions, and coordinate the patient plan of care (Chaboyer et al., 2010; Cockerham, 2009; NSW Department of Health, 2011). Multidisciplinary rounds at the patient's bedside promoted collaborative practices, and helped in meeting the unique needs of the patient and his or her family members (McCarthy & Blumenthal, 2006; NSW Department of Health, 2011). Multidisciplinary round is a model of care used by team members to discuss the goals of care and progress by coming together at the patient's bedside in real time (Gurses & Xiao, 2006; Kim, Barnato, Angus, Fleisher, & Kahn, 2010). Multidisciplinary rounding is a valuable vehicle in improving the quality and safety of patient care and patient experience because it helps facilitate the communication among health care team members is facilitated (Gurses & Xiao, 2006; NSW Department of Health, 2011).

Hourly rounding. Ford (2010) noted that hourly rounding provided multiple opportunities for staff members to communicate with patients. During the hourly

rounding, nurses would address the personal needs of patients, such as voiding, positioning, need for pain medication, and ensuring that the call light and other things of the patients were within reach (Ford, 2010). When patients felt their nurses provided genuine care, such as effective nurse-patient communication, the patients tend to give the hospitals higher satisfaction scores because of positive patient experiences (Ford, 2010). While there were many advantages of hourly rounding to the patients, Ford (2010) identified several barriers to implementation. For example, Deitrick, Baker, Paxton, Flores, and Swavely (2012) used enabled descriptive ethnography and focused observations to study the manner staff members were performing hourly rounding. The focus of the study was the obstacle in performing hourly rounding and the effect on patient experience and satisfaction. Deitrick et al. (2012) identified multiple problems in the study. First, the purpose of the hourly rounding was unclear (Deitrick et al., 2012). Second, there was inadequate amount of information and dissemination of the purpose and processes involved in hourly rounding from the leaders (Deitrick et al., 2012). Third, the integration of the hourly rounding into the staff workflow was problematic (Deitrick et al., 2012). Fourth, there was a problem of not completing the rounding logs throughout the shift, but only at the end of the shift, which indicated no rounding accountability (Deitrick et al., 2012). Fifth, the attitudes of the staff about hourly rounding were uncertain, and the staff was unable to link hourly rounding and patient safety (Deitrick et al., 2012).

Olrich, Kalman, and Nigolian (2012) conducted a quasi-experimental study to replicate Meade, Bursell, and Ketelsen's (2006) study on rounding protocol to evaluate the effect of hourly rounding on patient falls, satisfaction of patients, and call light usage

frequency by patients on two medical units. The experimental unit had a fall rate of 3.37/1000 patient days before the study (Olrich et al., 2012). With rounding interventions, the fall rate decreased to 2.6 per 1000 patient days (Olrich et al., 2012). However, call light usage did not show a valid and statistically significant change and there was no retrievable weekly data tracking throughout the study from the call light data system (Olrich et al., 2012).

Barriers to Effective Nurse-Patient Communication

Concerns about routine tasks. In an Australian hospital, Bolster and Manias (2010) used a quantitative approach in medication administration to study the interactions between nurses and patients. The result revealed ordinary performance of routine tasks by the nurses (Bolster & Manias, 2010). Even though, nurses learned about the patient-centered care model, the nurses did not display the essence of this model when they performed their daily patient management and assessment (Bolster & Manias, 2010). McCabe (2004) observed nurses focusing more on their chores rather than communicating respectfully and clearly with the patients and other nurses. Fakhr-Movahedi, Salsali, Negharandeh, and Rahnavard (2011) suggested the need to change the practice of persistent task-centered approach to nursing care, and encouraged nurses to consider a patient-centered care and communication style.

In Hong Kong, Chan, Jones, Fung, and Wu (2012) used focus group interviews to explore the nurses' perception of their availability to communicate with their patients. The results showed that the nurses' behavior to communicate correlated closely with the nurses' perception of their availability to communicate (Chan et al., 2012). There was a competition between communications scheduled routinely and meeting the needs of the

patient; so Chan et al. (2012) suggested a paradigm shift in thinking that nurse-patient communications required time.

Nurses being tired and too busy. Communicating with the elderly patients in Korea was problematic, so to understand better the barriers to communication, Park and Song (2005) used a descriptive qualitative research method to investigate the problem. The findings revealed a perception that nurses were tired and too busy to listen to patients (Park & Song, 2005). Nurses on the other hand perceived patients as not being trusting and that patients had difficulties hearing what the nurses had discussed, so Park and Song (2005) suggested to develop a communication skills training for nurses.

Lack of training, time, and resources. Communication with patients comes in many forms, including multidisciplinary rounds. Cowan, Hays, Shapiro, and Vazirani (2005) studied the performance of the multidisciplinary ward rounds to describe the participation and perceptions of nurses. The results showed that charge nurses were more likely to participate in the multidisciplinary ward rounds rather than the staff nurses because of the perception that conducting patient rounding was too close to the change-of-shift report (Cowan et al., 2005).

Perron et al. (2009) explored the needs and perceptions of clinical supervisors regarding their role as trainers in improving the residents' communication skills. There were four focus groups, each of which had a clinical supervisor (Perron et al., 2009). All participants captured any issues with communication with an audiotape (Perron et al., 2009). The results showed that the clinical supervisors addressed the communication issues with residents as rescuers, rather than as formal instructors (Perron et al., 2009). Other obstacles identified to communication skills instructions included competing

demands, lack of time, and lack of interest and experience on the part of the residents (Perron et al., 2009). Additional barriers to multidisciplinary rounds were a lack of adequate resources and difficulty for nurses to make decisions. For example, findings in a study by Cuthbertson, Flin, Mearns, and Reader (2011) revealed that nurses lacked the opportunity to perform bedside rounds or to contribute to the decision-making process. Senior nurses provided limited verbal contributions during multidisciplinary rounds, which indicated the need for more training (Cuthbertson et al., 2011).

Noise and interruptions. Recognizing the importance of multidisciplinary rounds as a mechanism for communication and coordination of care, Gurses and Xiao (2006) conducted a systematic literature review on to design information technology for the multidisciplinary round process. Gurses and Xiao (2006) identified two barriers, noise, and interruptions to communication in multidisciplinary round. Participants in large pediatric hospital reported that during most (87%) of their surgical rounds they had difficulty hearing the discussions (Gurses & Xiao, 2006). Participants in multidisciplinary rounding reported many interruptions during rounds, most of which were unrelated requests for nonurgent therapy and diagnostic decisions (Gurses & Xiao, 2006). The other interruptions were comments and requests from consultants, phone calls, and unit-related management issues (Gurses & Xiao, 2006).

Limited attention for truth telling. In a study by Tabak et al. (2013), findings revealed limited attention for truth telling, which is a skill learned through training. Tabak et al. (2013) used a scenario-based questionnaire to develop the skills of practicing nurses and student nurses to tell reliable information to patients and their families. The basis of the training was the theory planned behavior theory. The conclusion was the

planned behavior theory predicted strongly the nurses' intentions to provide truthful information to patients and their loved ones (Tabak et al., 2013). Students, on the other hand perceived social influence pressured them to tell the truth (Tabak et al., 2013).

Communication and Interpersonal Skills for Nurses

Ample literature suggested that nurses did not communicate as well as they should in healthcare settings (Bach & Grant, 2009; Despins, 2009; Norgaard et al., 2012; Wilkinson et al., 2008). Most people believed they were good at communicating because they learned the skill of expressing themselves since birth (Bach & Grant, 2009). Some individuals practiced their relationship skills through modeling or trial and error, and those behaviors became second nature (Bach & Grant, 2009). Despite these notions, there were events when interactions did not go smoothly, and messages were misunderstood (Bach & Grant, 2009). These events proved that despite developed expertise, an individual could learn and improve human relationships mainly because there are varieties of factors that can influence someone's response (Bach & Grant, 2009). For example, results from a study by Moore et al. (2004) showed that communication skills did not improve reliably with experience**.**

Bach and Grant (2009) noted the importance of communication and interpersonal skills in nursing practice. C*ommunication* is the process of exchanging information between individuals by means of writing, speaking, or using a common system of signs or behavior (Bach & Grant, 2009). *Interpersonal* is the connection between two or more individuals or groups, how they involve one another, especially in the way they behave toward and feel about one another (Bach & Grant, 2009).

Relationship between communication and interpersonal skills. In 2008, Charlton et al. reviewed two different communication styles in the literature. These styles were biopsychosocial and biomedical. The biomedical style was more information focused; the concentration was on giving details or specific information concerning the condition of the patient (Charlton et al., 2008). The focus of the biopsychosocial style was on patient-centered communication, which demonstrated more impact on patient outcomes (Charlton et al., 2008). Findings from the study showed that well-practiced communication techniques were not enough to maintain interpersonal relationships **(**Charlton et al., 2008). Communication must go hand-in-hand with the central notion of the interpersonal connection (Charlton et al., 2008). In nursing context, Charlton et al. (2008) established that the primary factor was the relationship between the patient and the nurse, caretaker, or co-worker.

In the nursing literature, the results of a study by Jones (2007) maintained the rich supply of research on communication skills, but little in interpersonal skills, most specifically in nursing education. This finding was real despite the presence of policies that promoted the effectiveness of patient-centered communication (Jones, 2007). Jones (2007) used conversation analysis and semi-structured lectures to assess the efficacy of tapes and dictations of actual nurse-patient interaction. The study findings revealed that the students had difficulty in applying the good communication principles they learned from the classroom into their clinical settings. Another setback was the disparity of theory in nursing education from clinical practice (Jones, 2007). Furthermore, literature was lacking on communication and interpersonal skills in real nursing situations in the practice environment (Bach & Grant, 2009), as well as in undergraduate nursing

education (McCarthy, Trace, & O'Donovan, 2014). Proficiency in communication was also an entry-level requirement for professional practice and registration (McCarthy et al., 2014; Nursing & Midwifery Council, 2010).

Essential Communication Skills

McCarthy et al. (2014) emphasized the necessity of effective communication for the safety and quality in health care practice. Bach and Grant (2009) suggested that in the context of therapeutic relationships, the essential skills to communication are listening and attending, giving information, empathy, and support. Communication is an important element in a relationship; therefore, nurses should focus on the patient as a person first then as a patient (Bach & Grant, 2009). McCabe and Timmins (2006) agreed on the significance of relationships, but indicated that the development of a relationship is challenging because of the lack of available time. McCabe and Timmins (2006) explained that time is a precious commodity, especially in understanding the needs of each patient.

In one Press Ganey Associates study, they found that communication with nurses was the *rising tide measure* among the eight HCAHPS dimensions of care (Press Ganey Associates, Inc., 2013c). The eight dimensions of care included (a) communication with doctors, (b) communication with nurses, (c) hospital staff's responsiveness, (d) pain management, (e) communication about medication, (f) cleanliness and quietness of hospital environment, (g) discharge information, and (h) the overall hospital rating (Press Ganey Associates, Inc., 2013c). The three substantive skills and behaviors that encompassed the critical aspects of the hospital experience on communication with nurses were a) courtesy and respectfulness of nurses, b) nurses listening carefully to

patients, and c) nurses explaining things in a way that patients could understand (Press Ganey Associates, Inc., 2013c). Data collection occurred between October 1, 2009 and September 30, 2010 from 3,062 acute care hospitals in United States in the Centers for Medicare and Medicaid Services Hospital Compare Database (Press Ganey Associates, Inc., 2013c). Findings from this study offered valuable insights on how to improve and implement strategic initiatives in hospitals that might result to fast and far-reaching positive change (Press Ganey Associates, Inc., 2013c). The analysis identified the following five dimensions that consistently clustered together: (a) nurse communication, (b) hospital staff responsiveness, (c) management of pain, (d) communication about medication, and (e) the hospital's overall rating (Press Ganey Associates, Inc., 2013c). In the above cluster, communication with nurses led the other four (Press Ganey Associates, Inc., 2013c). The Press Ganey study indicated that an increase in the score of the rising tide measure (nurse communication) also increased the scores of the associated measures (Press Ganey Associates, Inc., 2013c).

Solid performances on the dimensions of communication with nurses and those dimensions associated with it required enactments of best practices such as purposeful hourly rounding, use of scripts, bedside shift reporting, and post-discharge callbacks (Press Ganey Associates, Inc., 2013c). The implementation and sustenance of these best practices entailed a culture-promoting individual accountability and responsibility in the delivery of patient-centered care (Press Ganey Associates, Inc., 2013c). The stakeholders should engage themselves with these best practices and recognize their importance and benefits to patients. Organizational leaders should monitor and celebrate their successes and to address their shortfalls (CMS, 2013; Press Ganey Associates, Inc., 2013c).

Improving performances in communication with nurses is essential to meet the goal of the Centers for Medicare and Medicaid Services and the National Quality Strategy of providing a real patient-centered care and positive patient outcomes (Press Ganey Associates, Inc., 2013c).

Courtesy and respect. *Courtesy* is a set of rules for governing the interaction among people, and it is a way to demonstrate respect for other people (Press Ganey Associates, Inc., 2010). *Respect* is the act of acknowledging and engaging the other person (Gallagher, 2007). Specific behaviors associated with courtesy and respect depends significantly upon the ethnicity and culture of the patient (Gallagher, 2007).

In an attempt to identify the similarities and differences in the interpretation of the term, *nurse treats with courtesy and respect* among nurses and patients, a study was done involving one of the questions asked in the HCAHPS survey, which is about nurses being courteous and respectful (Yap et al., 2012). One of the goals of the study was to gain insight from the patients on what respect and courtesy meant to them, and to enhance the awareness of nurses to provide high quality and a good experience that might help increase the patient satisfaction scores (Yap et al., 2012). The qualitative method was appropriate to find the themes that defined courtesy and respect from both nurses and patients. The sample consisted of 24 nurses and 48 patients on two medical-surgical units (Yap et al., 2012). The four themes that emerged from the study were communication, manners and attitude, caring and privacy, and friendliness (Yap et al., 2012).

For the theme of communication, the patients' responses for the term 'courteous' included one who listened and conversed regularly (Yap et al., 2012). The nurses'

responses for the same term “courteous’ was someone who listened and explained to patients (Yap et al., 2012). Patients’ responses on what respectful communication meant to them was one who listened, answered questions, explained, asked the patients’ opinion, and spoke loud and clear (Yap et al., 2012). For the nurses, respectful communication meant someone who showed respect, respected cultural beliefs, treated someone kindly, and did not treat adults like children (Yap et al., 2012). Overall, the study findings showed considerable similarities in the perceptions of courtesy and respect from patients and nurses on the theme of communication (Yap et al., 2012).

Studer Group (2005) recommended some actions and steps to improve the experience of patients regarding courtesy and respect with nurses. One strategy was the implementation of the five fundamentals of patient communication: *acknowledge, introduce, duration, explanation,* and *thanking the patient* (AIDET) (Studer Group, 2005). The acronym AIDET is useful when communicating with patients and the members of their family (Studer Group, 2005). Studer Group (2005) explained that the AIDET tool served as a reminder for health care providers to be respectful and to explain their plan of care to their patients. This tool allows health care providers to show empathy and to establish trust in their relationships with patients (Studer Group, 2005). This framework for communicating with patients and their families improved clinical outcomes and patient satisfaction (Studer Group, 2005). The other actions identified by Studer Group (2005) to improve the perception of courtesy and respect were making eye contact, smiling, giving the patient time and attention, and sitting down whenever possible when communicating with the patients and their families. Nurses could also promote the behaviors of courtesy and respect by interacting in a professional way and

respectful manner, conducting hand-off at the bedside that include the patients and their families in the process, and asking them what else could be done to improve the patients' care (Studer Group, 2005).

Press Ganey Associates, Inc. (2010) suggested multiple improvement solutions to observe courtesy and respect. The process must start by hiring frontline staff who naturally exhibit customer service (Press Ganey Associates, Inc., 2010). The adoption of customer service behavioral standards must be a consideration, such as introducing oneself to the patient and his or her family when entering the patient's room (Press Ganey Associates, Inc., 2010). Some key behaviors mentioned to demonstrate courtesy and respect included the following examples from Press Ganey Associates, Inc. (2010),

- Knocking before entering the room.
- Acknowledging and using desired name and title for patients and their family.
- Introducing oneself to the patient and family members.
- Saying 'please' when making requests, and 'thank you' when responding.
- Explaining what needs to be done and why before doing it.
- If interrupting any activity, apologize and say, 'Excuse me.'
- Asking the patient if there is anything else to be done before leaving the room. (pp. 2-3)

In a study by Yap et al. (2012), the findings revealed that patients considered the following actions and behaviors disrespectful and discourteous: making sarcastic remarks, insincere apology, not listening, yelling, using a loud voice, showing an act of frustration with conversation, and not explaining. The actions and behaviors nurses considered disrespectful and not being courteous included talking over the patient, not

paying attention, not listening, too loud, not giving information, and not explaining clearly (Yap et al., 2012). Nurses should avoid these actions and behaviors when communicating with patients to improve patients' hospital experience (Yap et al., 2012).

Courtesy is the act of listening, regularly conversing, addressing the patient appropriately, asking open-ended questions, and thanking the patient (Yap et al., 2012). A study on terms and endearment by Doherty (2008) emphasized the importance for nurses to acknowledge the intellectual demands and the complexity of clinical situations and to have the skills to deal with them. To change the public understanding of what nurses do Doherty (2008) suggested that they must act compassionately and intelligently. Some nurses address their older patients as 'love' or 'dearie' to indicate endearment, but others thought these nurses forgot the names of their patients. Nurses should speak courteously and respectfully to older people by addressing them as adults, and not as if they are a child (Doherty, 2008).

Despite study findings, suggesting that recovery and satisfaction of patients improved with courteous bedside manners, researchers from Johns Hopkins (2013) found that doctors-in-training did not readily introduce themselves to hospitalized patients. The doctors did not also sit down to talk eye-to-eye (Johns Hopkins, 2013). Patients benefited with better patient outcomes if healthcare professionals employed the following five etiquette-based communication strategies: (a) introducing one's self, (b) explaining one's role in the care of the patient, (c) asking open-ended questions, (d) touching the patient, and (e) talking with the patient eye-to-eye by sitting down (Johns Hopkins, 2013).

Listening carefully to patients. The term, *listening carefully*, means being present or being human (Taylor, 1994). Regardless of age, the empowered nurse should

listen, see, and respect all people as individuals (Doherty, 2008). Patients and their families watch the body language of health care professionals as a way of listening; confirm their perception of the body language through verbal communication, and succeeding action based upon their understanding (Doherty, 2008).

Listening carefully is an act indicating one's willingness to give personalized care by taking into account the person rather than ignoring special requests (Press Ganey Associates, Inc., 2010). Listening and understanding the individual are crucial to meet the needs and enhance the care. The actions and strategies used to facilitate active listening are silence, touch, facial expression, and closer proximity (Press Ganey Associates, Inc., 2010). These techniques also help to develop empathy, intuition, and presence between the nurse and patient (Doherty, 2008).

Press Ganey Associates, Inc. (2010) recommended multiple improvement solutions on careful listening. First, the health care organizations should provide communication trainings to their staff to develop, practice, and improve the skills on communication and the behaviors that demonstrate attentive listening. When responding to patients' and family members' requests, the response should be courteous and respectful, and avoid giving any impression that patients are overreacting. Nurses should remain calm when explaining and giving information. Certain words and phrases to avoid include the following: "I cannot help you."; "I do not have time for this."; "I already told you" (Press Ganey Associates, Inc., 2010, p. 4).

Studer Group (2005) emphasized the use of making eye contact and paying attention when a patient or family is speaking. Asking the confirmatory question is also helpful, such as "So you want me to...," "I would like to take some notes while you are

talking…Is that OK with you?"; "I am listening" (Studer Group, 2005, p. 5). Patients desire to participate in their care and treat them as equal partners. Patients also want their healthcare professionals to listen to them and to inform them properly. Nurses should never engage in competitive listening (Studer Group, 2005). Press Ganey Associates, Inc. (2010) provided the following behaviors to be avoided: glancing at one's watch, rolling of eyes, chewing gum or candy, exasperated exhales, fidgeting (e.g., folding arms, twirling hair), and placing hands over one's mouth. Press Ganey Associates, Inc. (2010) noted that patients and their family members appreciated if nurses gave them their complete attention, and communicating with the elderly patients required the nurses' full attention.

Understandable explanations. The researchers from Press Ganey Associates, Inc. (2010) suggested that in every hospitalization, the patients looked back at each specific encounter with nurses to recall if communications were clear and effective in solving the problems about their care. Findings from a study by Langewitz et al. (2010) indicated that effective communication clearly described the situation to help resolve the questions of the patient, addressed any reservations, and alleviated the patient's fears of uncertainties. Patients and their families wanted to know the basics, such as the tests ordered, rationale for each test, place for the tests, length of time to complete the tests, staff to do the tests, types of results, who would notify them, and what they need to do next (Leonard & Frankel, 2011; Press Ganey Associates, Inc., 2010). Press Ganey Associates, Inc. (2010) suggested that nurses should have continuing education, most specifically on how to explain tests and procedures to patients because nurses might not know the answers to some types of tests, procedures, and treatments patients would

undergo. A number of the high-scoring partners of Press Ganey Associates provided nurses with folders that contained information about their tests and procedures. Others provided handouts to patients with simplified information about their procedures and treatments.

Explaining to patients would involve a direct and undivided attention to the patient by nurses and hospital staff. Nurses should deal with the patient at that moment and "explain what they are doing and why, while they are doing it" (Press Ganey Associates, Inc., 2010, p. 6). Other low-cost recommended strategies are welcome brochure upon admission, nurses' contact information, and daily newsletter (Press Ganey Associates, Inc., 2010).

Patients and their families have several opportunities to get involved without additional resources and time. During shift change, for example, nurses exchange information about the patient. The patients and family could listen, observe, learn, and get involved by asking questions and clarifying their concerns. Another opportunity to involve the patient and the family is during handover at the patient's bedside. Press Ganey Associates, Inc. (2010) indicated how performing the handover at the bedside improved patient satisfaction, especially in understanding the information.

When providing educational materials to patients ensure the readability levels to be clear and simple, the information is brief, and be ready to help the patients, as they need the meanings of things explained at times (Press Ganey Associates, Inc., 2010). No matter how simple the information seems to the hospital staff, avoid the use of medical jargon. *Analgesic* to some patients is jargon; *painkiller* is plain language (Press Ganey Associates, Inc., 2010).

Another opportunity for patients to get involved with their care is during post-discharge telephone calls. Press Ganey Associates, Inc. (2010) described post-discharge phone calls as effective ways to improve the continuity of care for patients, to ensure that they adhere to their medication regimen. These post-discharge callbacks helped provide patients with clear and understandable information after their hospital stay (Press Ganey Associates, Inc., 2010).

Press Ganey Associates, Inc. (2010) noted that giving information to patients and emphasizing some major points contributed to good patient experience. Some key considerations were recognizing the importance of giving clear information in health care and the factors that could affect the responses of patients to the information they received (Press Ganey Associates, Inc., 2010). Nurses needed a sound knowledge, a range of skills, and resources to support effective information giving because this process is integral to many roles of nurses (Press Ganey Associates, Inc., 2010).

One of the National Safety Goals for hospitals is communication (Joint Commission, 2014). The Joint Commission (2014) identified that in one patient stay in an acute care setting, a number of healthcare providers might participate in the care of a patient. Involving many healthcare professionals could lead to many different diagnoses and moving the patient to different levels of care within the system. Communication among healthcare providers is vital to the patient's care and welfare (Joint Commission, 2014). In many instances, Joint Commission (2014) noted that clear communication was significant in disseminating essential information and shared within a supportive environment. Poor communication among healthcare providers was the cause of several Sentinel events (Joint Commission, 2014). Clear communication with patients and their

families during hospitalization and at the time of discharge helped promote positive patient outcome (Joint Commission, 2014).

Overall hospital rating. In one study by the researchers from Press Ganey Associates, Inc. (2013c), the findings revealed that improving the hospital's score on communication with nurses influenced the hospital's overall rating positively. Barlow (2009) emphasized the importance of providing a good experience for the patients because they can choose any health care facility to provide their health care services. The results from the study of Press Ganey Associates, Inc. (2013c) also showed that effective communication could enhance the management of care; and it could improve the quality of services, patient safety, and the overall rating of the hospital.

Communication Skills Training

In a study by Goldsmith, Ferrell, Wittenberg-Lyles, and Ragan (2013), findings demonstrated several concerns regarding nurses' communication skills, such as a correlation between emotional distress, work-related stress, and moral distress with poor processes and communication experiences. The emotional context of nursing care related to communication skills included nonverbal communication (Goldsmith et al., 2013). Other research studies suggested that the under appreciation of patient-centered communication, barriers in effective communication, and inadequacy of training were the causes of ineffective nursing communication (Tay, Ang, & Hegney, 2012; McCaffrey et al., 2012). Tay et al. (2012) indicated to consider seriously the cultural background of patients when discussing sensitive topics. Language barriers were significant to patients who could not converse in English, as well as nurses trained overseas (Tay et al., 2012). The care provided to cardiac patients was often poorly coordinated because of cultural

communications issues between and among providers. Consequently, the provisions of social, health, and palliative care services to patients with cultural communication issues were less (Murray et al., 2002).

In a study by Hudon, Fortin, Haggerty, Lambert, and Poitras (2011), their findings showed that the achievement of highly safe processes were possible by training all of the staff including the nurses on how to communicate effectively with patients, as well as in managing the organization, and designing the systems. For example, Hudon et al. (2011) found that a patient-and family-centered model of care provided an opportunity for patients, their families, and health care providers to exchange information in a caring way. This communication strategy allowed the patients to participate in their care actively from admission through discharge. Applying the patient-and family-centered model of care during patient rounds helped reduce preventable harm because patients had better chances to understand accurate and unambiguous messages, which enabled them to participate in their care responsibly (Hudon et al., 2011).

Findings from Raica's (2009) study showed that nurses often lacked self-confidence to explain their opinions when managing and caring for patients, which could lead to miscommunication and a threat to patient safety. Raica (2009) used a quasi-experimental, one-group pretest-posttest design to evaluate the effectiveness of the situation, background, assessment, and recommendations training course on nurses' self-efficacy. The study findings suggested the need for training programs to help nurses develop their confidence and assertive communication skills (Raica, 2009).

Ya-Hsuan et al. (2014) evaluated the nurses' communication skills with a scenario-based simulation with patients suffering from myocardial infarction using an

experimental design. The assignment of 122 participants was equal between the experimental and the control group. The experimental group used a scenario-based simulation, and the control group used a traditional class-based instruction to learn the communication skills (Ya-Hsuan et al., 2014). The researchers observed a significant increase in communication skills as shown by a t-test ($p < .001$) in the experimental group (Ya-Hsuan et al., 2014). As suggested by Ya-Hsuan et al. (2014), training helped the nurses to acquire their communication skills, which could lead to improved patient outcomes.

Methods used in communication skills training. The methods used in most communication training programs included didactic methods, role-plays, video demonstrations, and clinical simulations (Koponen, Pyorala, & Isotalus, 2012). These techniques are important for training purposes, based on the program's objectives, availability of resources, and skills of the trainers (Koponen et al., 2012). Successful physician-patient communication correlated to a number of positive outcomes such as the satisfaction of patients about their care and better understanding of their treatment (Zolnierek & Dimatteo, 2009). The expectation for nurses is to communicate effectively with patients, colleagues, and the patients' significant others.

Wilkinson, Leliopoulou, Gambles, and Roberts (2003) conducted a study to evaluate the impact of communication training. Wilkinson et al. (2003) found in their study results that effective communication was a significant element of safe and quality care, and it could influence the experience and compliance of the patient. Wilkinson et al. (2003) recognized that communication-training program was an important component of patient care. However, after evaluating the efficiency of the training program, the

results showed very slight change in the communication skills behavior of health care professionals after their training (Wilkinson et al., 2003).

***Didactic approaches*.** A didactic instructional method still predominated the pedagogical teaching practice to engage the minds of learners (Thomas, Alexander, Jackson, & Abrami, 2013; Wise & O'Neill, 2009). Tobias and Duffy (2009) explained that teachers use the content and the pace of instruction to transmit information to students, which places the teacher at the center of the pedagogical universe. Learners use well-structured problems with pre-defined answers within the professional-patient relationship to understand the communication process (Tobias & Duffy, 2009). Providing handouts or books also would help learners in the training process (Tobias & Duffy, 2009).

Learners developed or strengthened their appropriate attitudes through assigned readings and discussions (Thomas et al., 2013). The most common didactic approaches to learning communication skills as identified by Thomas et al. (2013) were self-learning, lecture, group discussion, and reading. Through these methods, learners gain evidence about the impact and value of effective communication focusing on the acquired skills (Thomas et al., 2013). Didactic approaches were basic and a cost-efficient means of gaining knowledge, skills, and motivation to effectively communicate with patients (Thomas et al., 2013); thus lecture through PowerPoint presentations and group discussions were the didactic approaches used for this study (Thomas et al., 2013).

Role-play. Role-play was one of the interactive approaches used in the study. Tobias and Duffy (2009) described the approach that places the students at the center of their learning environment as an interactive pedagogical approach. The most common

interactive approaches described by Tobias and Duffy (2009) were role-play, simulation, and discussion forum with elaborate feedback. Doxey (2012) and Gockel and Burton (2014) indicated that the use of role-play to teach communication skills was very common. As noted by Thomas et al. (2013) watching others within an interactive environment was an effective way to learn the communication skills. Additionally, students could choose their own instructional materials and navigate through them with their own pace (Thomas et al., 2013). Health care leaders realized the significance of effective communication skills, and so they showed support to communication initiatives by providing opportunities to put the learned skills into practice (Thomas et al., 2013).

Gotckel and Burton (2014) used a large-group role-play to assess the effect of helping skills training delivered in classes for foundational practice on the acquisition of proximal indicators of counseling skills. There was a significant gain in self-efficacy maintained by the social work students at 3-month follow up (Gotckel & Burton, 2014). Students often receive their first education on communication skills and counseling in their foundational practice course (Gockel & Burton, 2014). Doxey (2012) discussed the involvement of role-playing in teaching communication competencies to dentistry students with simulated patients and peers. Role-plays or simulation exercises with real or simulated patients provided the students with a variety of venues to develop and expand their critical thinking (Doxey, 2012). During the early stages of learning communication skills, learners had moments of awkwardness or using incorrect approach, which might hurt the real patient (Doxey, 2012).

Role-playing was one of the formative techniques, and the scripts developed are as close as possible to realistic situations (Doxey, 2012). The achievement of the

required effects of role-playing was achievable with clear instructions, with a small group and in a secure context (Doxey, 2012). Other strategies observed by Doxey (2012) to enhance the effects of role-plays were reinforcing the skills in a supportive environment, being mindful when to stop the role-play, and to take and simulate the constructive comments from the facilitator and observers. Doxey (2012) noted the caveat of this method as time-consuming and difficult to prepare the required scenarios similar to clinical situations. Role-play was an effective method for initial learners because it was a simple process. In role-plays, the students could apply their theories and abstract concepts to actual situations to gain a better understanding of their assigned concepts (Doxey, 2012). Doxey (2012) noted one disadvantage of role-play that it might be inappropriate for new nurses to practice with actual patients because of potential instances for awkward or ineffective display of communication skills.

The other approach to interactive education used in this study was simulation. In a simulation environment, Doxey (2012) suggested that learners practiced safely because they could not harm the simulated patient. The learners could redo their performance as needed and they could take their time, stopped the process to consult with their facilitator or colleagues, or obtained feedback (Doxey, 2012). In an actual encounter with nurse-patient communication, the nurses could observe and learn from the simulated patients' responses (Doxey, 2012). The learners evaluated the effectiveness of their communication skills and through repeated practice and self-reflection; they reported that the interactive simulation gradually enhanced their communication skills (Doxey, 2012). These interactive approaches (role-playing and simulation) played a big role in the design of the communication- training program for this study. The organizational pattern and

management were supporting factors for the nurse participants (Thomas et al., 2013). All nurse participants were registered nurses employed by the selected inpatient wards of the study hospital site. Role-playing with actual patients provided the nurses continued chances to practice their communication skills, which is typical with different patients and different situations (Thomas et al., 2013).

Videotape demonstration. Johnston et al. (2012) noted that videotape demonstration was a direct and cost-effective teaching method for key communication skills if the videotape is well developed. Learners observed interview demonstrations and model structured key communication approaches, skills, and tasks (Johnston et al., 2012). Videotape demonstrations stimulated learners to participate in a discussion through an interactive teaching style (Johnston et al., 2012). Videotape demonstration helped to provide chances to discuss the areas that worked well and those that did not after reviewing the videotape (Johnston et al., 2012). Learners could use a number of effective examples as models and the actual sample language, which is helpful during the learning period (Johnston et al., 2012).

Gockel and Burton (2014) found videotape demonstrations effective in generating and guiding small and large group discussions with a facilitator. Junod Perron et al. (2014) also noted the efficiency of videotaped clinical encounters to evaluate one's own communication skills. The results from a self-evaluation provided a more meaningful means to recognize the most essential communication skills to use in a variety of situations (Junod Perron et al., 2014). Videotape demonstrations with well-developed communication skills could shorten the training time because of their availability as a resource for trainers coupled with a more simplified preparation of training content

(Gockel & Burton, 2014). The advantages of videotape demonstrations helped in deciding to use the tool in the communication-training program for nurses in this study.

Self-evaluation and observation with feedback. In nursing education, the traditional methods of teaching are lecture and discussion, which do not support active learning (Carcich & Rafti, 2007). In any effective communication training and motivational learning, Yoo, Yoo, and Lee (2010) found in their study that the foundations were self-evaluation and observation with feedback. Yoo et al. (2010) used a pretest/posttest experimental design to examine the impact of self-evaluation with the use of video recording on the following three outcome measures: competency of procedure, communication skills, and motivation for learning. The experimental group of students (n=20) evaluated their performances by reviewing video recording, and the student participants in the control group (n=20) evaluated their performances by using written evaluation materials (Yoo et al., 2010). The posttest conducted 8 weeks after the pretest showed better scores for students in the experimental group than the control group on all three outcome measures: competency ($p< 0.001$), communication skills ($p< 0.001$), and learning motivation ($p=0.018$) (Yoo et al., 2010). There was an increase in the nursing students' clinical skills competency that resulted from the development of self-awareness of one's performance by reviewing the videotape (Yoo et al., 2010). Self-evaluation technique enabled the continual development of communication skills in nursing clinical practice (Yoo et al., 2010). Observation with feedback should continue in practice areas with more complex situations for optimal results (Yoo et al., 2010).

The results from a research by Yoo et al. (2010) showed that feedback sessions worked best if the focus was on the learner. Observation with feedback involved both the

peer and instructor feedback. Observation with feedback could produce anxiety, depending on the context, but this teaching method could also provide the opportunity to observe the learners on a video recording to evaluate their own performance, improve self-awareness, and promote learning through self-direction (Yoo et al., 2010).

Communication Skills Training Evaluation

In virtually any organization, success requires good and effective communication skills (Wienclaw, 2014). In the United States, the Joint Commission revised the requirements to improve the provider-patient communication that applied to the accreditation program of hospitals (Smith & Pressman, 2010). This move was important for those who trained nurses for hospital care. In this critical area, they needed to examine the extent and quality of programs provided by training hospitals (Smith & Pressman, 2010).

In Ireland, Ryan et al. (2010) conducted a quasi-experimental study to assess communication skills in nursing and medical students by using standardized patients. In all medical and nursing schools, students learned communication and consultation skills in undergraduate curricula, but they did not have any communication and consultation skills assessment programs (Ryan et al., 2010). Assessment programs are essential to test the acceptability, process, and content of a communication and consultation skills screening program (Ryan et al., 2010). Smith and Pressman (2010) urged health care decision-makers to adopt and adapt some of the ideas from a variety of available comprehensive model training programs to improve provider-patient communication.

In a study by Krimshtein et al. (2011), they emphasized the optimization of nurses' potential to become good communicators with management supportive.

Healthcare leaders must recognize that learners needed repeated practice to refine their communication skills, and to receive constructive feedback about their performance (Krimshtein et al., 2011). Teaching communication and interpersonal skills in nursing education was problematic because of a lack of systematic evaluation of teaching and difficulty in resolving the difference between the ward way and the school way (Chant et al., 2002a).

Reviewing several studies conducted in the last 15 years provided a clearer picture related to nurses' communication-training programs. The intent of this literature review was to find the gap in the literature about communication-training programs and obtain information, ideas, and ways to promote and enhance the communication skills of nurses, especially with patients with a variety of communication vulnerabilities and challenges. Through scrutiny of the literature review, the basis for study design, purpose, training methods, training programs, instruments, and outcomes became clear.

A literature review by Kruijver et al. (2000b) that evaluated the effects of nursing communication skills training programs in nursing care from 1985 to 1998 showed that there were limited or no effects on nurses' behavioral changes in practice, on nurses' skills, or on patient outcomes. The review included 14 studies: three randomized controlled trials with individual level randomization (Kruijver et al., 2000b). One randomized controlled trial was with ward-level randomization, four studies with pretest-posttest nonrandomized design and six studies with a single-group pretest-posttest design (Kruijver et al., 2000b). Study participants included 1001 health care workers from oncology, psychiatric, and general health care (Kruijver et al., 2000b).

Specific interventions of the communication training included several topics. The topics were therapeutic behaviors (non-directive skills), interviewing skills, attitudes toward death and dying, assessment skills and psychological depth, and relationship building (Kruijver et al., 2000b). The other topics in discussion included behavioral intervention, therapeutic qualities of conversation, communication skills and attitudes, theory on human relationships, empathetic responses, and perception of verbal and nonverbal feelings (Kruijver et al., 2000b). The duration of training ranged from 6 hours to 24 hours with training periods ranging from 2 days to 10 weeks (Kruijver et al., 2000b).

The results of the review showed that most of the studies had a weak design, with very few studies using an experimental design (Kruijver et al., 2000b). An experimental design offered the best evidence that the training program was the cause for the changes in outcomes and the determination of causality (Polit & Beck, 2012). However, experimental designs are more difficult to implement in human services settings, such as in this study because of the unwillingness of the hospital administrators to deny treatment to individuals who needed it (Polit & beck, 2012). Results on skills and attitudes in nine studies were inconsistent (Kruijver et al., 2000b). The results of four different studies revealed no benefit from intervention and five reported positive effects of training. The findings also showed inconsistent results with patient outcomes on four of the studies (Kruijver et al., 2000b). Two studies revealed no effects and the other two showed positive effects of the training. The recommendation was to use experimental designs in future studies to eliminate the influence of confounding variables (Kruijver et al., 2000b).

In 2001, Bowles et al. used a quantitative method, pre- and post-training scales, and qualitative method to describe the assessment of a solution-focused brief therapy training program (Bowles et al., 2001). Most specifically the researchers wanted to examine the significance of the skills in a 4-day training program in solution-focused brief therapy and the degree to which a short training program would affect the nurse participants' communication skills (Bowles et al., 2001). The focus group was composed of 16 registered nurses meeting the criteria of working with adults and health visitors from different settings in clinical areas (Bowles et al., 2001). The training method used a theoretical education solution-focus, conversation, role-play, and positive feedback (Bowles et al., 2001). All participants attended the 4-day training program in solution-focused brief therapy. Quantitative data showed an improvement in nurses' practice on four dimensions after the training (Bowles et al., 2001). Additionally, significant levels in changes with the willingness of nurses to communicate with troubled people were noted (Bowles et al., 2001). Qualitative data exposed changes to practice, which showed that nurses' rejected the problem-oriented dialogues and reduced feelings of emotional stress and insufficiency (Bowles et al., 2001).

In 2002, Razavi et al. conducted a longitudinal and randomized control group design involving 115 nurses from oncology to assess the impact of communication skills training on nurses' use of additional emotionally laden words. The focus of discussion was basic communication skills in oncology and empathy (Razavi et al., 2002). A variety of instructional techniques, such as didactic method, videotaped role-plays, clinical interviews and nursing assessments on audiotape, case presentation, and simulated interview were used (Razavi et al., 2002). For training programs and instruments, the

researchers used a rating system for the observer of emotional depth level utterances, and audio recorded nursing assessments and clinical interviews (Razavi et al., 2002). The assessment of study participants occurred in three different periods (Razavi et al., 2002). The assessment of nurses in the randomized control group were at first time, third month, and 6 months later, while the nurse participants in the training group were before training, just after, and 3 months later (Razavi et al., 2002). Each nurse was required to complete a 20-minute simulated interview in clinical setting (Razavi et al., 2002). The results revealed an increase in nurses' usage of emotional laden words immediately after the training, and so Razavi et al. (2002) believed that a communication skills training might improve nurses' empathy.

In 2002, Wilkinson Gambles, and Roberts evaluated the impact of a communication skills program given to oncology nurses in emotionally laden areas in cancer care. A single-group pretest-posttest design involved a sample of 308 oncology nurses (Wilkinson et al., 2002). The investigators used different instructional methods such as lectures, clinical practice, and audio-recorded interviews with feedback (Wilkinson et al., 2002). Other techniques of teaching used were role-plays with feedback recorded in video and postgraduate communication skills course (Wilkinson et al., 2002). Audiotape recorded nursing assessments were taken before and after the training (Wilkinson et al., 2002). The topics in discussion were attitudes toward cancer, nurse-patient communication, relationships, nonverbal and verbal communication, assessment of mental distress, and management of problematic circumstances (Wilkinson et al., 2002). The bases of the evaluations were on nine previously identified key communication areas (Wilkinson et al., 2002). The improvement post intervention ($P <$

0.001) was statistically significant in all nine individual areas of the assessment (Wilkinson et al., 2002). Those areas with high emotional content showed most improvement (Wilkinson et al., 2002). In this study, validation occurred that a communication skills training with the integrated approach has the possibility to advance the skills of nurses, specifically in emotionally laden areas (Wilkinson et al., 2002).

In another study, Chant et al. (2002a) noted a serious concern about the lack of interpersonal skills of graduates in recent nursing educational programs, and a reported history of patient dissatisfaction with communication and giving information. These concerns prompted Chant et al. (2002a) to conduct a broad study of academic communication skills training for nurses and other health professionals in England. The study results revealed a lack of proper research to evaluate pre- and post-nursing education communication skills training as well as in other healthcare disciplines (Chant et al., 2002a). Hospital leaders usually involved commercial on-the-job training seminars to remedy poor communication skills of aides and nurses, rather than professional educators (Chant et al., 2002a). Cegala and Broz (2003) agreed with Chant et al. (2003) that typically, the duration of seminars was short, focused only on a specific skills set, and follow up was rare to determine the sustainability of the learned skills (Cegala & Broz, 2003). This practice in healthcare settings resulted to inconsistent success for both quality and timing (post-education) of communication education (Cegala & Broz, 2003; Smith & Pressman, 2010). The need for communication training in nursing education required recent research to resolve this problem (Cegala & Broz, 2003; Johnston et al., 2012; Smith & Pressman, 2010).

However, Wilkinson et al. (2003) observed that not all communication trainings failed. Wilkinson et al. (2003) evaluated the effectiveness of eight condensed 3-day workshops in improving the communication skills and in changing the behavior of cancer and palliative care nurses at various United Kingdom venues. The design used was a single-group pre-course test and immediately post-course test by using a sample of 108 nurses from different cancer and palliative care clinical areas (Wilkinson et al., 2003). For teaching methods, Wilkinson et al. (2003) used didactic lectures, video demonstration, audio-recorded patient assessment with written or verbal feedback, a handbook, a video teaching pack, role-play with feedback, and open discussions. For instruments, the investigators used rating of audiotaped nursing assessments and a self-report questionnaire to assess confidence levels in various communication skills (Wilkinson et al., 2003). The topics discussed in eight condensed 3-day workshops were nine key assessment skills in nursing covering how to deal with difficult situations and strong emotions, communication with colleagues and children, and how to deal with stress within the clinical environment (Wilkinson et al., 2003). The outcome showed a significant improvement in perceived confidence in teaching communication skills, and the confidence areas in communication found difficult prior to the course improved immediately post-course (Wilkinson et al., 2003).

Another study with successful training results was that of Moore et al. (2004). Randomized controlled treatment trials conducted before and after the communication training were instrumental to assess the impact of the training in changing the behavior of health care providers in cancer care (Moore et al., 2004). The training methods were modular course (didactic), role-play, simulated interviews; and clinical interviews

(Moore et al., 2004). Evaluation of the changes in participants' behaviors and skills was easy to complete by using objective and validated scales (Moore et al., 2004). Moore et al. (2004) conducted three trials with 347 health care providers. One trial used a 3-day course then evaluated the interactions between the oncology doctors and 640 patients (Moore et al., 2004). A second trial used a modular course then assessed role-plays with oncology nurses, and a third trial also used a modular course and then measured the outcome with clinical and simulated interviews and questionnaires for patients (Moore et al., 2004). The training courses assessed through these trials appeared effective in cultivating some areas of communication skills for cancer care nurses (Moore et al., 2004). However, it was unknown if when taught by others, these training courses would be as effective (Moore et al., 2004).

In 2006, McGilton et al. evaluated the effectiveness of a communication enhancement intervention on nurses' job satisfaction and patients' satisfaction by using a one-group repeated measures design. The sample involved in the study included 21 nursing staff working in a multifaceted setting of continuing care and 16 patients meeting all selection criteria (McGilton et al., 2006). The instructional methods were didactic teaching sessions, active listening strategies, discussions, and interacting with patients and the basis for the training was the Solution-Focused Brief Therapy Technique (McGilton et al., 2006). Nurses and patients provided the data at baseline from, 5 weeks into the intervention, and at 10 weeks after the intervention (McGilton et al., 2006). The variables for nurse outcome were job satisfaction and relationship with patients, while the patient outcome variables were two measures of patient satisfaction with care (McGilton et al., 2006). The study results revealed the following: (a) nurses felt closer to their

patients (p = .045), (b) the levels of job satisfaction increased (p=.02), and (c) no changes in the level of patient satisfaction with care after the intervention (McGilton et al., 2006).

In Beijing, China Liu, Mok, Wong, Xue, and Xu (2007) found a general lack of educational training for nurses on specific communication on oncology. Liu et al., 2007) evaluated an integrated program on communication skills essential in the care of cancer patients. The study results showed an overall improvement in the basic communication skills of the oncology nurses after attending a comprehensive communication skills program (Liu et al., 2007).

In 2008, Dingley, Daugherty, Derieg, and Persing used a pretest-posttest design to develop, implement, and evaluate the impact of a comprehensive provider/team communication strategy on teamwork and communication efficiency. Selected healthcare providers participated in two settings, medical intensive care unit, and adult psychiatric unit (Dingley et al., 20008). The training methods were expert presentation, video presentation, fast talks, practice scenarios, situation, background, assessment, and recommendation practice sessions, concept poster, visual reminders, PowerPoint presentations, web-based training, huddles, and feedback (Dingley et al., 2008). The instruments used were structured communication tool, standardized escalation process (situation, background, assessment, and recommendation), daily goals sheet, and a pretest and posttest (Dingley et al., 20008). Pilot units provided the baseline and post-intervention data. There were 495 communication events collected and analyzed after the implementation of the communication intervention over a 24-month period (Dingley et al., 20008). The topics included team huddles, discussions, training efforts, and daily multidisciplinary patient-centered rounds (Dingley et al., 2008). The results of the

implementation of a communication toolkit revealed a reduction in treatment time, increased nurse communication satisfaction, and higher rates of resolutions of patient issues (Dingley et al., 2008). Conclusion in the study suggested that the implementation of some strategies in acute settings could improve collaboration and communication (Dingley et al., 20008).

In 2010, Fukui et al. held a 6-hour communication skill workshop in Japan to examine the effect of the program on oncology nurses' competence and confidence when breaking bad news to their patients. Fukui et al. (2010) used a single-group interrupted time series pretest-posttest design. The sample included 31 nurses who met the criteria for nurse-led support and follow-up system for patients diagnosed with cancer from eight institutions in eastern Japan (Fukui et al., 2010). Instructional methods included a lecture, role-play, and individual interviews (Fukui et al., 2010). The effects of the workshop were evaluated by determining nurse-rated confidence three times (before, immediately after, and 3 months after the workshop) concerning communication with patients by using a 21-item questionnaire (Fukui et al., 2010). Three months after the training, participants provided their perception about the efficacy of the training (Fukui et al., 2010). The findings showed an increase in the confidence of nurses when communicating with patients 3 months after the nurses participated in the communication skills training program (Fukui et al., 2010). The results also suggested that the training helped the nurses in building their confidence (Fukui et al., 2010).

Xu, Shen, Bolstad, Covelli, and Torpey (2010) conducted another study by using a sample of international nurses to evaluate the effectiveness of socio-cultural skills in communication. The investigators used an assessment quasi-experimental design that

involved 28 international nurses meeting inclusion criteria from two southern Nevada hospitals (Xu et al., 2010). The methods of instruction were workshops on the socio-cultural dimension of communication, videotaped workshop, role-play training session, and simulation (Xu et al., 2010). The training program included standard patients, a 21-item checklist to appraise behaviors in communication and presentation skills with an open comments field, a single clinical case, and a 10-item multiple-choice quiz (Xu et al., 2010). There were four workshops held on socio-cultural communication dimensions. The focus of the first workshop was to develop trusting nurse-patient dialogue, and the second focused on nonverbal cues (Xu et al., 2010). The concentration of the third workshop was on therapeutic communication skills, and the fourth was on telephone communication (Xu et al., 2010). The communication behaviors of participants improved significantly after the intervention, specifically the socio-cultural skills of communication (Xu et al., 2010). For most items in the checklist, no remarkable or notable differences were part of the standard patient comments (Xu et al., 2010). However, the participants demonstrated certain highly desirable qualities, such as caring behavior, pleasant personality, and compassion, which Xu et al. (2010) considered as good foundations of good patient-nurse relationship.

In a study by Farahani et al. (2011), the results showed that patient education was imperative in any healthcare setting and strengthening the nurse-physician communication and collaboration was necessary to optimize patient outcomes. The barriers of communication from the nurses' perspectives, as well as patients and families, and physicians on a cardiac floor in two hospitals in Tehran, Iran were the focus of Farahani et al. (2011). By using a qualitative methodology, Farahani et al. (2011)

interviewed 35 participants concerning their experiences in educating patients, obstacles in communication among patients, physicians, and nurses. The three themes that evolved in the study were (a) lack of communication and relationships between colleagues, (b) problematic communication between patients and their families and the healthcare team, and (c) cultural challenges (Farahani et al., 2011). These study findings supported the necessity for more collaboration and inclusion of nursing professionals in health care organizations (Farahani et al., 2011).

More recently, Moore, Mercado, Artigues, and Lawrie (2013) conducted a systematic review and updated the systematic reviews in 2004, originally published in the Cochrane databases as issue two versions. The participants in the study were 1,147 health care professionals (536 doctors, 522 nurses, and 80 mixed health care professionals) (Moore et al., 2013). The purpose of this review was to assess the efficacy of a communication skills training on the communication skills of health care professionals involved in the care of cancer patients, and the satisfaction and health status of patients (Moore et al., 2013). The selection criteria included randomized controlled trials evaluating communication skills training compared with no communication skills training or other communication skills training in healthcare professionals and working in cancer care (Moore et al., 2013). There were diverse types of studies noted on communication skills training. For example, there were 15 randomized controlled trials conducted in outpatient sites. Eleven studies involved comparison of communication skills training with no communication skills training involvement, three studies included comparison of the impact of a follow-up communication skills training intervention after

the first communication skills training, and one that compared two categories of communication skills training (Moore et al., 2013).

The study outcome indicated a statistically significant difference in the post-intervention interviews that health care professionals in the communication skills training group were more likely to use open-ended questions than the control group ($p = .04$) (Moore et al., 2013). The health care professionals in the communication skills training group were more empathetic to patients than individuals in the control group were ($p = .004$) (Moore et al., 2013). The differences in communication skills in the other health care professionals were not statistically significant (Moore et al., 2013). No significant differences between the health care professional groups on burnout, patient satisfaction, and patients' insight of the health care professionals' communication skills existed (Moore et al., 2013).

The evidence from this review revealed that some communication skills training programs were effective in improving supportive and information gathering communication skills (Moore et al., 2013). Over time, the sustainability of the effects of communication skills training was not determined (Moore et al., 2013). The benefits of session consolidation and the most effective programs were also unknown (Moore et al., 2013). No evidence supported the useful effects of communication skills training on patient satisfaction, burnout of health care professionals, and patients' physical and mental health (Moore et al., 2013).

Another study that showed positive results of the communication training was that of Boss et al. (2013). A core skill needed by neonatal clinicians and nurse practitioners is communicating with patients' families; yet offering communication training to these

nurses is rare (Boss et al., 2013). By using an evidence-based, interactive training for common challenges in communication, Boss et al. (2013) conducted an intensive interprofessional communication training to assess the effect for nurse practitioners and neonatal fellows (Boss et al., 2013). The results showed an increased self-perceived competence by the clinicians in facing common communication challenges like rare training opportunities (Boss et al., 2013).

In summary, there is evidence from this review that the most successful post-educational, communication training programs were associated with experiential learning, such as, role-play training sessions, simulation, and actual clinical practice. Effective communication skills training program contents require attention to knowledge, attitudes, and skills (Johnston et al., 2012). Knowledge of basic concepts of communication gives learners a context and vocabulary to develop communication skills. Incorporating attitudes into training programs facilitates the discussion of anxieties of learners, their role with specific patient situations, appreciating the importance of effective communication, and the need to see patients as people rather than as cases.

Training evaluations are also important. Weaver et al. (2010) studied the anatomy of health care team training and found the need to enhance the details in training evaluation reports as highlighted in content analyses. Over time, the maintenance of the effects of communication skills training was unknown, but majority of recommendations concurred that interpersonal skill communication should begin in the education phase (Weaver et al., 2010). On-the-job refreshers should attend workshops, rather than as remedial in nature (Weaver et al., 2010). Inclusion of formative assessment and follow-up assessment is necessary when conducting workshops in the future to determine if the

application of communication skills and retention of learned skills are still valid (Weaver et al., 2010).

Measurement of Communication Skills

Johnston et al. (2012) noted the creation of many instruments and assessment methods for specific professional training courses or disciplines to assess effective communication skills. Vogt (2007) explained that a baseline is necessary for measuring communication skills to obtain a meaningful measure of the outcome. For example, as part of the accreditation process, medical schools in the U.S. developed instruments and different methods to assess the competence of students in communication and interpersonal skills (Johnston et al., 2012). Duffy et al. (2004) listed the common methods to assess communication and interpersonal skills competence in medical schools that include surveys, essay exams, interviews, and checklists. Checklists are tools necessary to document observed behaviors during interactions with real or simulated patients (Duffy et al., 2004). Surveys are appropriate methods to collect data about patients' experiences and clinical interactions (Duffy et al., 2004). Examinations are tools used to assess learning, such as oral, essay, or multiple-choice response questions (Duffy et al., 2004). The creation of learning opportunities and identification of learning needs require assessment methods incorporated into educational programs (Duffy et al., 2004).

Accreditation agencies and organizations recommend criteria to comply with regarding the ability to communicate. For example, Derkx, Rethans, Knottnerus, and Ram (2007) assessed the communication skills of clinical call handlers by using an instrument in which they established validity and reliability after its development. The

goal of Derkx et al. (2007) was to develop a practical rating scale valid and reliable to evaluate the call handlers' communication skills. Assessment of the quality of care by phone and the clients' medical problem depended on the communication skills of the call handlers (Derkx et al., 2007). The common elements of most of the instruments reviewed were the general abilities of listening, writing, and speaking in the required language (Derkx et al., 2007; Duffy et al., 2004).

Fernandez, Wang, Bravemen, Finkas, and Hauer (2007) investigated the use of 'standardized patients' wherein the actors presented with a scripted condition as an assessment method of communication skills in medical schools. Doctor-patient relationship skills were most critical in cross-cultural interactions, so the use of standardized patients became the norm for assessing communication skills in the comprehensive examination in medical schools (Derkx et al., 2007). The focus of most nurse communication training programs was on nurses' outcome variables that involved the nurses' basic communication knowledge, skills, attitudes, and changes in behavior; and the outcome variables for patients were patient satisfaction and patient safety (Liu, 2005). The following subtopics examined the relevant evaluation methods based on the adopted training methods of the study.

Direct observation with real or simulated patients. Ryan et al. (2010) found in their study that one of the most important indicators to measure the impact of training programs with simulated or real patients was by direct observation of the participants' communicative behavior. Educators in medical and nursing schools in Ireland taught consultation and communication skills using standardized patient, but there was no comprehensive screen and assessment programs (Ryan et al., 2010). Ryan et al. (2010)

designed a way to test the content, process, and acceptability of the consultation and communication skills assessment program using trained standardized patient educators and a previously validated global rating scale. Working with actual patients could elicit a realistic picture, yet there was a difference in actual patients so uncontrolled influences related to patients might render measurement of the effect of the training unclear and doubtful (Ryan et al., 2010).

In communication skills training, Bosse, Nickel, and Nikendei (2010) found role-playing as a common learning technique. Role-playing takes place between two or more people, who act out roles in exploring a specific scenario (Harbour & Connick, 2004-2008). Study outcomes showed that role-playing helped prepare members of the team for unfamiliar or difficult situations, such as in conflict resolution, interviews, and presentations (Bosse et al., 2010; Harbour & Connick, 2004-2008).

Bosse et al. (2010) conducted a study to assess the perspectives of students on acceptability, realism, role-play, and standardized patients. Study findings revealed that both role-play and standardized patients were comparable tools for students' training on specific communication skills (Bosse et al., 2010). Both methods provided realistic training scenarios (Bosse et al., 2010. The results revealed that the students perceived the standardized patient as more beneficial and more relevant tool than role-play (Bosse et al., 2010).

Questionnaire. This study involved searching for and identifying reliable and valid questionnaires that would measure training effects on participants' perceived verbal and nonverbal skills, knowledge, and attitudes on communication. For example, Arthur (1999) used the Simulated Client Interview Rating Scale to assess the basic

communication skills of nursing students when interviewing patients. The other questionnaires used were the Communication Outcome Questionnaire and Participants' Self-efficacy Ratings in Oncology Specified Communication Tasks developed by Parle et al. (1997). However, neither of the above two questionnaires was appropriate for this study.

Mullan and Kothe (2010) conducted a study that evaluated nursing communication skills in Australia. The communication course evaluation required three stages to complete. The first stage required the completion of a pre- and post-course questionnaire that assessed the students' self-rated ability and expected satisfaction with the program (Mullan & Kothe, 2010). The second stage was an assessment of the students' satisfaction with the course by using a post-course questionnaire that contained both qualitative and quantitative sections (Mullan & Kothe, 2010). The third stage involved a formal assessment of all students after completing the course by assigning them grades based on their simulated nurse-patient encounter performance (Mullan & Kothe, 2010). The communication evaluation tool designed by Mullan and Kothe (2010) was not also appropriate for this study.

In a study by Johnston et al. (2012), they reviewed a number of instruments and different methods to assess and quantify effective communication and found several appropriate tools developed for a particular discipline to evaluate the effectiveness of communication skills training programs. Johnston et al. (2012) were specifically interested in improving the communication skills of the students in human services and healthcare, so they created a tool to gauge the effect of communication courses, and as criteria for admittance into healthcare education. The instrument consisted of three

segments. The first segment assessed listening skills and recognition of verbal skills by presenting two scenarios in video format (Johnston et al. 2012). The second segment was an 18-item self-report assessment of verbal and nonverbal skills (Johnston et al. 2012). The third section was composed of two written scenarios on nonverbal expressions and an assessment of students' writing skills (Johnston et al. (2012). This nurse researcher adopted the second segment (18-item self-report section on verbal and nonverbal communication skills) and four demographic questions because it was the most appropriate for the study. Chapter 3 will provide additional, detailed information about this second segment.

Fallowfield et al. (2002) assessed the effectiveness of an intensive 3-day communication skills training course for oncologists in randomized controlled trial with a two-by-two factorial design. Participants included 160 oncologists from 34 United Kingdom cancer centers. Course content included role-play with simulated patients, structured feedback, interactive group demonstrations, videotape review of consultations, and trained facilitator-led discussions. Fallowfield et al. (2002) found that questionnaires were cost-efficient but there was little evidence for the efficacy of written feedback. Other study findings showed significant improvements in key communication skills by attending the communication-training course. However, an increase in self-rated verbal and nonverbal ability does not necessarily represent skills acquisition or increased communication effectiveness in clinical practice (Fallowfield et al., 2002). Thus, an evaluation of the effects of the communication training from the perspective of the patients was necessary in this study by measuring the patient satisfaction with nurse communication and the overall rating of the hospital with the use of the HCAHPS.

Communication Theoretical Framework

In a review of the literature, most training methods were transitory and problem-focused at changing the behaviors of health professionals with patients (Bach & Grant, 2009). The concentration was on the lack of skills and knowledge in communication (Bach & Grant, 2009). Communication programs did not place emphasis on the transfer and maintenance of skills, as well as on the beliefs and attitudes of the participants (Parle et al., 1997).

The quality of communication helps determine the effectiveness in establishing relationships in healthcare (Bach & Grant, 2009). Findings from several studies showed that effective communication provided a big advantage in a competitive environment. Effective communication created stronger relationships, promoted patient safety and cooperation, developed listening culture, increased productivity, and improved patient satisfaction (Charlton et al., 2008; Thompson & McCabe, 2012; Zolnierek & DiMatteo, 2009).

Linear and circular models. Two theoretical frameworks described how communication takes place, linear and the circular (transactional) (Bach & Grant, 2009). The linear model is a simplistic model that involves the sender relaying a message to the receiver by one or more of the five senses (sight, hearing, taste, touch, or smell) (Bach & Grant, 2009). A more modern framework of communication is a circular process, which takes a larger context and social system (Bach & Grant, 2009). Communication as a process may be complex, but best understood as a circular process of interaction between people (Roberts, 2013). Bateson developed this model originally in 1979, and took account of the effects of context within which an interaction would take place (Bach &

Grant, 2009). This model viewed communication as continuous and involved mutual giving, and receiving. The model used a systems method to understanding communication, and each part had an effect on another part in the system (Bach & Grant, 2009). Furthermore, Bach and Grant (2009) identified that the sender and receiver shared characteristics, such as communication abilities and style, knowledge, culture, internal frame of reference, role, and values. The interpersonal nature of the response of one person to another, and the situational context in which the interaction took place could affect the internal value of the system (Bach & Grant, 2009).

Watson's caring theory. Watson described nursing as a "human-to-human relationship in which the person of nurse affects and is affected by the person of the other" (Watson, 1988, p. 58). Bach and Grant (2009), for example, observed the enhancement of communication, style of personal communication, and body language through gestures enhance. The communication process enables two individuals (e.g., nurse and patient) to exchange information, develop, and maintain a relationship (Bach & Grant, 2009). Additionally, Bach and Grant (2009) noted the existence of two cultures, the medical culture, and patient culture. The nurse and the patient think differently about health and illness (Bach & Grant, 2009). Reconciling the differences in these two cultures to achieve a successful nurse-patient relationship is very challenging (Bach & Grant, 2009). With deeper caring, the nurse attempts to clarify and negotiate through this cultural conjunction to identify the goals in nurse-patient interactions (Bach & Grant, 2009).

Watson's (1979) theory on human caring was the overarching structure and guide for integrating theory and evidence in creating the CLEAR communication model, which

was the basis of this study's communication-training program and learning objectives. Jean Watson's (1988) transpersonal theory correlates to the concepts of caring and interpersonal relationship. Watson (1988) described how the components of caring are reduced to describable parts to increase learning and understanding the experiential and interpersonal processes between the recipient and caregiver. Watson's (1979) human caring theory assisted in understanding the behaviors of courtesy, respect, listening carefully, and explaining things clearly strongly advocated in a nurse-patient communication (CMS, 2013).

The Code for Nurses on communication developed by the American Nurses Association not only specifically calls for nurses to respect confidentiality, but also to share information clearly (American Nurses Association, 2014). This statement indicates that American Nurses Association promotes the behavior of explaining things clearly, so people can understand (American Nurses Association, 2014). Communication between a patient and a nurse is a shared process that forms the source for the professional relationship (Bach & Grant, 2009). This relationship is the basis for improving patient care and patient outcomes (CMS, 2013; Watson, 1979, 2002), and so professional nursing practice should focus on the interpersonal aspect of nursing (American Nurses Association, 2014). Watson (1979) observed the importance of the development of a nurse-patient relationship first before a patient trusted, had faith in, and communicated his or her concerns and feelings with a nurse. Watson (1979) explained that caring is demonstrated only when people interact with each other, whether it is practiced within or across cultures (Bach & Grant, 2009).

Testability of Watson's caring theory. Researchers tested **t**he caring behaviors and concept of interpersonal relationship in Watson's (1979) theory in clinical setting. For example, Suliman, Wellman, Omer, and Thomas (2009) explored the Saudi Arabian patients' perception of the caring behaviors of nurses. Suliman et al. (2009) found that nurses from different cultural backgrounds treated the Saudi patients with caring behaviors (such as courtesy, respect, listening carefully, and explaining things clearly) that are strongly advocated in a nurse-patient communication by the Centers for Medicare and Medicaid Services (2013).

Nelms, Jones, and Treiber (2011) studied the effects of the behaviors from the caring theory of Watson (1979) related to medication administration errors. The results showed that medication errors occurred much less, if nurses were not distracted during medication administration (Nelms et al., 2011). Nurses felt their overall care for patients was suffering in this specific study because of the presence of multiple distractions during medication administration (Nelms et al., 2011).

Mullan (2000) also tested Jean Watson's (1979) caring theory. The focus of the study was on the relationship of depressed women entering therapy and experiencing the caring occasion within the transpersonal caring relationship as described by Watson (Mullaney, 2000). The study participants claimed that the caring occasion made them continue with the treatment and adopt health-seeking behaviors (Mullaney, 2000).

Summary

Patient satisfaction remains to be in the spotlight of healthcare because Medicare's value-based purchasing program for inpatients ties hospital payments partly on the HCAHPS survey results (Wolosin et al., 2012). Hospital administrators

continuously face multiple challenges created by attempts to control costs, enhance productivity and profitability, and maintain quality outcomes (Wolosin et al., 2012). Through both public exposure and financial incentives, hospitals would receive a reward or suffer a penalty based on the level of their patient experience (CMS, 2013).

The review of various searches supported that there was very little research addressing how to improve the patient experience and patient satisfaction scores in a health care setting, which affects hospital reimbursement (Department of Health and Human Services, CMS, and Medicare Learning Network, 2013; O'Leary et al., 2013). Studies results by Press Ganey Associates, Inc. (2013b) showed that effective communication correlated with positive patient experience and higher satisfaction scores. Johnston et al. (2012) reported that many studies conducted to evaluate communication skills existed; however, very few studies examined the benefits of communication skills training from the perspectives of patients (O'Leary et al., 2013). For this reason, the administrators of the hospital site for the study considered providing training intervention to clinical nurses and all other health care professionals to provide a collaborative work environment that could lead to superior patient outcomes.

The focus of previous communication studies was on the basic skills of communication and assessment. Such skills included but were not limited to active listening, using empathy, the use of open-ended questions, support and caring attitude, and giving comfort (Jones et al., 2007). Study findings revealed poor quality of nurse-patient communication in many inpatients care areas (Jones et al., 2007). The nurses focused mainly on their tasks, and at times used their blocking tactics to prevent the patients from voicing their problems or concerns (Jones et al., 2007).

The review of several studies conducted in the last 15 years revealed a clearer picture of nurses' communication-training programs. This literature review provided information, ideas, and ways to promote and enhance the communication skills of nurses with their coworkers, patients, and family members. Based on the reviews the study design, purpose, training methods, training programs, instruments, and outcomes became clearer. Most studies used the quantitative approach and few used the qualitative method. The research designs included randomized controlled trials, pretest-posttest nonrandomized design, and single-group pretest-posttest design.

Specific communication training intervention included several topics, such as, interviewing skills, assessment skills, therapeutic behavior, behavioral intervention, and therapeutic qualities of conversation. Other topics were communication skills and attitudes, theory on human relationships, empathetic responses, and perception of verbal and nonverbal feelings. The results of the review showed that very few studies used an experimental design. Polit and Beck (2012) argued that experimental designs offer the best evidence in determining causality, and that training programs are responsible for changes in outcomes; however, experimental designs are more difficult to implement in human services settings.

There were inconsistent results of the communication-training program on skills and attitudes of hospital staff and patient outcomes. Some investigators reported no benefit from the intervention, whereas others reported positive effects. The researchers recommended the use of experimental designs in future studies to eliminate the influence of confounding variables. Evidence from this review also revealed that a number of communication-training programs were effective to improve communication skills in

gathering information. However, a gap existed in determining the sustainability of the communication skills training over time. There were also gaps in determining which types of communication training programs are most effective and whether session consolidations were essential.

The organization of this literature review was around patient satisfaction and its relationship to nursing communication. Researchers affirmed that nurse-patient communication was a key determinant in the overall patient satisfaction with nursing care (American Nurses Association, 2014; Press Ganey Associates, 2013a; Studer group, 2007). The American Nurses Association (2014) considered nurse communication as the most effective tool for improving patient satisfaction. Nurse leaders with the knowledge and good understanding of these concepts made transformational changes in delivering health care services and in improving organizational processes. The findings from this research might augment the knowledge of nurses, other health care professionals, and hospital leaders on how to improve communication skills. Health care administrators and nurse leaders might agree to collaborate better to produce superior and effective communication outcomes. Chapter 3 is comprised of discussions of the research design, variables, population and sample, study setting, and ethical considerations of the study.

Chapter 3

Method

Chapter 3 presents an overview of the method of the study, appropriateness of design, population, sample, reliability, and validity of the instruments, data collection, and data analysis. A review of the literature in Chapter 2 provided basic information regarding communication skills, communication skills training, and patient satisfaction with nurse communication. The general problem was the poor perceptions of care and low customer satisfaction scores that could affect clinical outcomes and translate into poor organizational financial performance (CMS, 2013; Kutney-Lee et al., 2009; McCarthy & Blumenthal, 2006; Press Ganey Associates, Inc., 2013b; Zygourakis et al., 2014). Many of the studies reviewed demonstrated a correlation between effective nurse communication, improved patient's perception of care and satisfaction, and better organizational financial performance. The specific problem was nurses often lacked the necessary skills to communicate effectively with patients and other health care professionals (Farahani, Sahragard, Carroll, & Mohammadi, 2011; Fukui et al., 2010; Mullan & Kothe, 2010). Additionally, the evidence on how nurses might improve their communication skills was limited (Boss et al., 2013; McCabe, 2004; Tabak, Itzhaki, Sharon, & Barnoy, 2013), and that the effectiveness of a communication-training program for nurses was unknown, based on contemporary research articles (Boss et al., 2013; Mullan & Kothe, 2010). Recent research also revealed that insufficient communication-training courses was the cause of why nurses have poor communication skills, especially with their clinical communicative skills and behavior (Boss et al., 2013; Fukui et al., 2010; Raica, 2009; Zamanzadeh et al., 2014).

The purposes for conducting this quantitative pretest-posttest quasi-experimental study were to assess the estimated impact of the independent variable, communication-training program for nurses, on the dependent variables. The dependent variables were the (a) nurses' perceived level of their verbal and nonverbal communication skills, (b) inpatients' perceived level of satisfaction with nurses' communication related to courtesy and respect, careful listening, and understandable explanations, and (c) inpatients' perceived level of the overall rating of the hospital in acute care setting. Measurements of the dependent variables occurred before and after the administration of a communication-training program. The nurse sample was recruited through direct referrals from their nurse managers, presentations, and word of mouth.

Research Method and Design

An important step in this research process was choosing the method and design. Different approaches to research methods are qualitative, quantitative, or mixed methods (Creswell, 2008; Polit & Beck, 2012). A quantitative method, pretest-posttest quasi-experimental design was the choice for this study.

Appropriateness of quantitative method. The quantitative method was appropriate for the study because the process delineated a standard format to generate the hypothesis to be proved or disproved and rejected or supported with the use of statistical data. The goals in quantitative studies include prediction, confirmation, control, and testing of a hypothesis with measurable variables (Creswell, 2008; Polit & Beck, 2012). The quantitative method was appropriate because the study processes involved examination and explanation of relationships between known independent variable and dependent variables. The intent of the study was to test hypotheses and describe some

trends of retrievable data in the form of numbers and statistics, which are characteristics that discriminate quantitative methods from qualitative research (Marczyk et al., 2005; Salkind, 2008; Steinberg, 2011).

A qualitative method was not appropriate for this study because qualitative methods do not involve examination or correlation of relationships between variables, and numerical design and measurement necessary to present the data for this study (Creswell, 2008). The researchers in qualitative studies explore the problem among a small number of respondents by using open-ended interviews (Polit & Beck, 2012), which was not the best approach for conducting this study. Data collection in qualitative studies is traditionally based on open-ended observations, documents, and interviews (Creswell, 2008), none of which applied to this study. A qualitative study does not include educated guesses to test hypotheses (Sproull, 2004), which was the case for this research.

Appropriateness of research design. Research designs categorized into experimental, quasi-experimental, and nonexperimental, served as guides in finding the answers to research questions (Polit & Beck, 2012). The pretest-posttest quasi-experimental design was appropriate for this study because random assignment of nurse participants to groups, a procedure used in experiments, was not possible where real-time communication training would be taking place (Creswell, 2008). Researchers often make use of quasi-experimental designs when randomized designs are not feasible (Marczyk et al., 2005). The design indicates the types of data for collection, the number of times to collect the data, the place for the study, and the comparisons made in the study (Marczyk et al., 2005). The pretest-posttest quasi-experimental design is an improvement of the

posttest only design because it adds an observation before the implementation of the communication intervention (Marczyk et al., 2005).

The experimental design was not the appropriate approach for finding the answers to the study research questions because random individual assignment was not feasible even if this was the finest method to guarantee internal validity. In real-world environments, such as in clinical nursing research, assigning the study subjects (nurse participants) at random and keeping them separate in the control and training groups is often nearly impossible, especially when they work in the same area (ward) (Polit & Beck, 2012). If the nurse participants in the training or control group worked in the same clinical ward, there was a risk that the control group might learn and use the contents of the communication skills training program. They could also change and model their own communication behavior and performance similar to other individuals taking the training. This change in communication behavior by the control group would contaminate the result and decrease the difference between the control and experimental groups, affecting the internal validity of the study (Marczyk et al., 2005).

Study design. In the study, the definition of the pretest period for obtaining the numerical data for the dependent variables, verbal and nonverbal communication skills of nurses, was the time just before conducting the training and the posttest period was immediately after the training. The pretest period for obtaining the patients' satisfaction scores with nurse communication consisting of (a) nurses' courtesy and respect, (b) nurses' careful listening, and (c) nurses' understandable explanations, and the overall rating of the hospital, was the 2 months prior to implementation of the communication-training program. The posttest period was the 2 months after the implementation of the

training. Comparison of the pretest and posttest responses was possible by using the collected numerical data. Polit and Beck (2012) depicted the pretest-posttest design in the following formula, which was the design used in the study:

$O_1 \quad X \quad O_2$

O_n = observation at time *n*

X = intervention (implementation of a communication-training program)

Either adding a control group to the basic pretest-posttest design could enhance this design by using a nonequivalent control group or starting with a larger sample and assigning the participants randomly to either the treatment group or a control group (Marczyk et al., 2005). However, the two groups had to be similar, and the primary reason for any difference is the administration of communication training. Nonetheless, the nonequivalent groups design was not feasible for the study because there were no similar inpatient units. Every inpatient unit had unique populations' characteristics (number, diagnoses, severity of illness, length of stay, and nursing workload requirement) and nurses' characteristics (age, number, and number of years of working experience in nursing) that might contribute to significant between-group differences. Unmeasured differences between groups and unknown confounders can bias the results (Marczyk et al., 2005). These significant differences made it impossible to make the groups similar on relevant variables and characteristics.

Study setting. Two telemetry units at one acute care hospital in the southeastern United Sates was the site for the study. The research site was chosen because the hospital was the largest in the area, so the likelihood to obtain the largest number of nurse participants and the highest number of patient respondents was more promising. IRB

approval letter (see Appendix I), data access and use permission (see Appendix M), and premises, recruitment, and name (PRN) use permission (see Appendix L) were obtained from participating hospital. The HCAHPS vendor of the participating hospital also provided the researcher with data access and use permission (see Appendix K).

Variables. In research, a major consideration is the selection of which variables (dependent or independent) are included in the study. Vogt (2007) described variables as things, items, or factors that can change or control. The independent variable in this study was the implementation of a nurse communication-training program. The dependent variables for the nurse outcome were the nurses' perceived level of their verbal and nonverbal communication skills. The dependent variables for the patient outcomes were the inpatients' perceived level of satisfaction with nurses' communication related to (a) courtesy and respect, (b) careful listening, and (c) understandable explanations; and (d) inpatients' perceived level of the overall rating of the hospital.

Communication Skills Training

This section involves information about the communication-training program, who presented the training workshop, and the presenters' qualifications for leading a communication-training program. The curriculum used to teach the behavioral principles of effective nurse-patient communication was based on the researcher-developed model, the CLEAR (**C**ourteous **L**istening, **E**xplaining, **A**nd **R**espectful) communication model. This researcher-developed model was an exemplar for transforming and advancing communication in nursing within a theoretical and evidence-based practice. Watson's human caring theory was the basis for integrating theory and evidence in building relationships in nurse-patient communication (Watson, 1979; 1985; 1988).

Presenters. The presenters/trainers in the communication skills training workshop were the clinical specialist of the two telemetry units where the nurse participants were working and the investigator for this study. The following information reflects the qualifications of the presenters/trainers in leading the communication-training program. The clinical specialist had a master's degree in adult education and was in nursing practice for over 36 years. She worked as a staff nurse, nurse educator, organizational development specialist, director of education, and as a clinical specialist in many areas of the healthcare system. She conducted numerous communication programs throughout her professional career with the focus of caring for the entire person, mind, body, and spirit. Her passion was teaching others how to incorporate the principles of caring communication into their daily lives.

The investigator for this study held a master's degree in Nursing, a master's degree in business administration in healthcare management, a bachelor's degree in chemistry, and was pursuing a doctorate degree in nursing. She was practicing nursing for over 24 years, and worked as a staff nurse, nurse educator, clinical coordinator, and as a nurse manager. She also served as a university associate professor where she facilitated undergraduate and graduate courses for nursing that included health care communication strategies necessary for collaborative and patient-centered communication, evaluation methodologies, and theories and models in nursing practice. As a nurse manager, she participated in numerous leadership development initiatives focused on the improvement of the patient experience and effective communications among health care professionals.

Communication training intervention. The goal of the training was to improve the participants' communication skills in patient care and all areas of professional

practice. The leaders in the research site recognized the importance of effective communication and education to assuring optimal health outcomes. To ensure a consistent approach in communicating with patients, the hospital administrators asked the presenters to offer the communication training to all nurses employed in two telemetry units selected in the study site; however, participation in the study was on a voluntary basis. Hospital management also planned to offer the communication training to all other employees in the future, if the findings were significant. The design of the intervention incorporated the art and science of communication. The primary investigator focused on the scientific components of communication while the clinical specialist focused on communication as an art.

The approach to training was skill-based and incorporated different teaching strategies such as role-play, simulation, video presentation, PowerPoint presentations, discussions, and feedback throughout each simulated clinical encounter. These learning strategies were consistent with the recommended behavioral performance improvement methods cited by Gockel and Burton (2014), Krimshtein et al. (2011), Maguire and Pitceathly (2002), and Smith and Pressman (2010). The number of communication training sessions administered was 16. The training sessions were offered at different times to accommodate potential participants on all shifts.

Each training session was comprised of three segments that lasted between 3 to 4 hours. The first segment included teaching strategies such as didactic approaches and videotape presentations. The second segment involved role-plays and debriefing. The third segment included simulation-based exercises of clinical areas, followed by immediate feedback, and facilitated debriefing. The videos and other training materials

were developed for the hospital, viewed, and reviewed by experts in the field based on evidence regarding verbal and nonverbal skills. The communication-training program was implemented with consistency for every participant, and the teaching strategies were consistent with the recommended behavioral performance improvement methods cited by Gockel and Burton (2014), Krimshtein et al. (2011), Maguire and Pitceathly (2002), and Smith and Pressman (2010).

Didactic approach. The two didactic approaches used to engage the minds of the nurse participants were lecture through PowerPoint presentation and group discussion. The PowerPoint presentation was a 45-minute lecture highlighting the principles of the researcher-developed CLEAR communication model and the model's importance in the development of effective communication skills (Thomas et al., 2013). The objective for presenting the researcher-developed CLEAR communication model was to renew the caring connection of arts and science in the practice of nursing. The application of the four principles (courtesy, listening carefully, explaining things clearly, and respect) of the CLEAR communication model is key to effective communication in nurse's daily work. The communication training was a very good venue to teach and evaluate the effectiveness of the researcher-developed CLEAR communication model on the nurse's ability to communicate in the health care setting and to validate the effectiveness of the program for future implementation in other areas.

The group discussion was a 15- to 30-minute structured exchange of views on particular topics among the participants. One topic presented to the group was the significance of measuring and relevance of patient satisfaction to value-based purchasing and the direct impact of the patient satisfaction scores to the financial stability of the

organization. Through discussions, the nurse par could develop or strengthen their appropriate attitudes (Thomas et al., 2013). Didactic approaches are cost-efficient means to impart knowledge, skills, and motivation (Thomas et al., 2013).

Videotape presentation. As part of the communication intervention, the nurse participants watched two videotapes that demonstrated different techniques of conveying verbal and nonverbal skills. The focus of the verbal and nonverbal skills in the video was the principles of the CLEAR Communication model, which provides guidance to a courteous listening, explaining, and respectful communication. The duration for each video presentation was 15 minutes. According to Johnston et al. (2012), if very well developed, videotape demonstrations could be a direct and cost-effective method for teaching key communication skills. After reviewing the tape, Johnston et al. (2012) indicated that video demonstrations provide opportunities to discuss the areas that worked well and those that did not. During the learning period, nurse participants could use models of effective verbal skills and actual sample language (Johnston et al., 2012), which could shorten the training time (Gockel & Burton, 2014). Videotaped clinical encounters were useful to evaluate one's own communication skills (Junod Perron et al., 2014).

Role-play. One of the interactive approaches used to teach verbal and nonverbal skills involving courtesy and respect, listening carefully, and provide clear explanations was role-play. Role-play, was a 30- to 45-minute interactive approach that placed the learners at the center of their learning environment (Tobias & Duffy, 2009). Role-play was very common to teach communication skills (Doxey, 2012; Gockel & Burton, 2014) because watching others within an interactive environment facilitates the learning process

(Thomas et al., 2013). In 2014, Gockel and Burton used role-play in a large group to investigate the impact of helping to deliver skills training g in classes for foundational practice to acquire proximal indicators of counseling skills. There was a substantial gain in self-efficacy maintained by the students in social work at 3-month follow up (Gockel &Burton, 2014).

Simulation-based exercises of clinical areas. Many different disciplines and trainees use simulation for practice and learning (Lateef, 2010). Simulation is a technique that amplifies real experiences because it entails a fully interactive fashion by duplicating considerable aspects of the real world (Lateef, 2010). The equipment and realistic scenarios provide opportunities for retraining and until one can master the procedure (Lateef, 2010). Before the simulation in this study, the nurse participants received a preparation learning on nurse-patient communication, followed by the enactment of the simulation (40- to 60-minute activity), and finally the debriefing session (Aebersold & Tschannen, 2013). The simulation scenarios corresponded to the didactic content of the communication-training program designed to assist the participants in the management of clinical issues related to ineffective communication.

Debriefing session. The debriefing session was a 15-minute revisiting session after a role-play or simulation that involved learners, and guided by the presenters, to identify and close the gaps in skills and knowledge (Peters & Vissers, 2004). The learners would partake to make a connection between experiences gained from performing in a role-play or simulation and real-life experiences (Peters & Vissers, 2004). However, not all participants can equally able to reflect on their experiences gained during the game (Peters & Vissers, 2004). Moreover, the participants would have

varied conclusions and application to real-life situations (Peters & Vissers, 2004). Even more important, is the limited participants' picture of what had happened (Peters & Vissers, 2004). While partaking in role-play or simulation session, they only observe those portions their position allows them to (Peters & Vissers, 2004).

In summary, the goal of the communication-training program was to enhance the nurse participants' knowledge of effective communication in the workplace to produce favorable patient outcomes. The participants learned how to manage difficult nurse-patient communication encounters through simulation and role-play. Videotaped clinical scenarios displayed different verbal and nonverbal skills and their relationship to changes in patient outcomes.

Assessment and evaluation of the communication training. In a study by Mullan and Kothe (2010), the findings showed that a training program requires a plan for continual assessment of its effects and progress to provide information for future planning and implementation. Banta and Paloma (2015) defined *assessment* as the process of gathering information necessary to measure what the learners know, understand, and do regarding the topic because of their educational experiences. Stiggins and Chappuis (2012) suggested that effective assessment methods include establishing a clear purpose of the evaluation, assigning tasks to the learners, setting criteria and standards for the performance, and providing opportunities to offer feedback to participants. Findings of Suskie's (2009) study showed that extensive and rigorous assessment evidence is more convincing, but requires more time to complete.

For this study, the first measure was a pre-training evaluation by using a self-assessment tool to obtain reference point data of the nurses' verbal and nonverbal skills

(McNamara et al., 2010). Stiggins and Chappuis (2012) explained that objective assessments are effective when the learning objectives emphasize the foundation of knowledge and reasoning proficiencies. The second measure was the formative evaluation conducted during program development. With formative evaluation, modifications and improvements to the program were possible by allowing the nurse participants to offer feedback while the program was in operation (McNamara et al., 2010). In their study results, Reese, Jeffries, and Engum (2010) found that simulation was an effective assessment practice. In this research, simulation allowed the nurse participants to achieve a clearer understanding of the instructional materials and to play an active part in the learning process (Schnurr, De Santo, & Green, 2014; Shepard, McCunnis, & Brown, 2010). Simulation as an assessment practice is specifically useful for experiential learning (Schnurr et al., 2014; Waxman, 2010), such as in the training implemented in this study. The last measure was the summative evaluation conducted after the program to make judgments about the overall quality of the program (McNamara et al., 2010). Assessment practices help ensure the realization of the learners potential by achieving their critical thinking skills and appropriate knowledge (Saiz, Rivas, & Olivares, 2015).

Research Questions and Hypotheses

Conducting the study involved examining the estimated impact of a communication-training program intervention on (a) nurses' perceived level of verbal and nonverbal communication skills, (b) inpatients' perceived level of satisfaction with nurses' communication related courtesy and respect, careful listening, and understandable explanations, and (e) inpatients' perceived level of the overall rating of the hospital. The

research questions and hypotheses used to guide this study and the approach to data analysis were the following:

Research Question 1 (RQ1) and Hypotheses. RQ1: What effect, if any, does a communication-training program have in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States?

$H1_0$: A communication-training program will not result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

$H1_a$: A communication-training program will result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

Research Question 2 (RQ2) and Hypotheses. RQ2: How does a communication-training program for nurses affect inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores?

$H2_0$: A communication-training program for nurses will not result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores.

$H2_a$: A communication-training program for nurses will result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores.

Research Question 3 (RQ3) and Hypotheses. RQ3: What is the effect of a nurse communication-training program in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores?

$H3_0$: A nurse communication-training program will not result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

$H3_a$: A nurse communication-training program will result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

Population and Sample

Population in research refers to all individuals of interest to the researcher (Marczyk et al., 2005). A sample is a representative subset of the population (Marczyk et al., 2005). The target population in this study consisted of two groups. The first group was registered nurses working in two telemetry units in one hospital selected to conduct this study. The second group was adult patients discharged from these two telemetry units of the hospital meeting the eligibility criteria of all payer types after an inpatient stay (CMS, 2013). The study sample consisted of a sample of nurses and a sample of satisfaction scores from the patient groups during the study period.

The first telemetry units was a 47-bed unit that provided care to patients with cardiac, neurologic, and vascular conditions who required cardiac monitoring. There were 45 registered nurses employed in this unit. The second unit was a 41-bed telemetry/intermediate care unit that provided care to post-surgery patients, post-intervention patients, patients with neurologic, cardiac, and vascular impairment who

required cardiac monitoring, and with capability of monitoring more acutely ill patients who did not meet admission criteria to the critical care units. The estimated nurse population in the second unit was 60. The target nurse population was 105.

Based on the *Occupational Employment Statistics, May 2015* (U.S. Bureau of Labor Statistics, 2016), there was an estimated 2,745,910 registered nurses population in the United States. The researchers at Montana State University (2016) described the key characteristics of the nurse population by using the data from the *Current Population Survey's Basic Monthly Files*. The full-time employed registered nurses between the ages of 35 and 49 dominated the workforce since 2005 and continued to soar around one million since that time (Montana State University, 2016). The next largest age groups of full-time employed registered nurses were those over age 50, matching the size of the 35-49 age groups in 2011. The number of full-time employed registered nurses with ages less than 35 doubled in size of 450,000 in 2005 to 2014 (Montana State University, 2016). Employment swings occurred over a short period in both hospital and non-hospital settings. The net employment increase over the past 39 quarters was 13% in non-hospital settings, and 28% in hospital settings over the same period (Montana State University 2016). The percentage of nurses licensed between 2010 and 2013 who were male was 11 % (Health Resources and Services Administration, 2013). According to Budden, Zhong, Moulton, and Cimiotti (2013), the national workforce data of registered nurses from 2013 consisted only of 3% Hispanic or Latino, 83% white or Caucasian, and 6% black African Americans. The data obtained from the *Florida Center for Nursing* (2014) showed that 10.2% were Latino or Hispanic, 66% were white or Caucasian, and 10.6% were male nurses.

Nurse sample. Sampling is the mechanism of selecting the subjects, so they represent a larger population of like subjects (Polit & Beck, 2012). Studying a representative sample allows the investigator to draw valid implications about the population (Marczyk et al., 2005). A non-probability convenience sample of all nurses employed in two telemetry units of an acute care facility in southeastern United States were invited to participate in the study. Convenience sampling occurs when participants join in the study based on their willingness and availability (Marczyk et al., 2005). Potential nurse participants were 18 years old or older, able to read, speak, and understand the English language, and have given their consent to participate.

Table 2

*G*Power 3 Sample Size Determination for Nurses*

Means: Difference between two dependent means (Matched Pairs) Analysis: A priori: Compute required sample size			
	Power (1-? err prob)	Power =0.80	Power=0.95
Input	Effect size *d*	0.035	0.35
	? err prob	0.05	0.05
	Output: Noncentrality parameter?	2.52	3.32
	Critical t	1.67	1.65
	Numerator df	51	89
	Total sample size	52	90
	Actual power	0.801	0.9505

Note: "G*Power 3: A Flexible Statistical Power Analysis Program for the Social, Behavioral, and Biomedical Sciences," by F. Faul, E. Erdfelder, A. Lang, and A. Buchner, 2007, *Behavior Research Methods, 39*(2), 175-191.

The estimated minimum sample size, based on outcomes of a priori sample size calculation with effect size of d=0.35, significance level of 0.05, power of 0.80 (as suggested by the National Institute of Health), was 52, and for power of 0.95 was 90 (see Table 2) (Faul et al., 2007). The computation of the required sample size for this study involved the use of the G*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007).

Recruitment of the nurse sample was through presentations, direct referrals from their nurse managers, and word of mouth. The nurse researcher approached each potential nurse participant under the inclusion criteria. After consenting to participate, the nurse researcher started the consent process.

Combining the nurse participants from the two telemetry units into one group was necessary to meet the estimated minimum sample size. As Delice (2010) noted in one study, a larger sample size increases the overall power and therefore increases the repeatability, reliability, and generalizability of the study findings. Delice (2010) also explained that a larger sample size provides an allowance for attrition/dropouts during the course of the study. Polit and Beck (2012) emphasized how critical to estimate the minimum sample size in clinical research to determine the time and funding to execute the research.

Patient sample. The patient sample consisted of 2 months of HCAHPS satisfaction scores on nurse communication and the overall rating of the hospital from the patient respondents of two telemetry units of one urban hospital in the southeastern United States before the implementation of the communication-training program and 2 months of HCAHPS satisfaction scores after the training. The calculation of the patient sample involved the use of G*Power 3.1.9.2. As can be seen in Table 3, a pre-study power analysis revealed the need for a minimum of 44 sample size for power 0.80, and 77 for power 0.95 of completed HCAHPS survey per period (pre- and post-intervention) by using an odds ratio effect size of 4.8, and a significance level of 0.05 (V) (Faul et al., 2007).

The odds ratio effect size of 4.8 converted from previous studies that suggested 0.667 for the outcome from two groups and Pillai's V of 0.4 (Faul et al., 2007; Faul, Erdfelder, Lang, & Buchner, 2009). Patients' data involved access to, and use of a private and archival data of HCAHPS satisfaction scores from the database of Press Ganey Associates (survey vendor of the hospital). The HCAHPS survey design reflected the experience that patients received while in the hospital (CMS, 2013).

Table 3

Sample Size Determination for Patient

Proportions: Inequality, two dependent groups Analysis: A priori: Compute required sample size			
	Power (1-β err prob)	Power =0.80	Power =0.95
Input	Effect size odds ratio	4.8	4.8
	α err prob	0.05	0.05
	Prop discordant pairs	0.3	0.03
	Output: Parameters		
	Lower critical N	10	16
	Upper critical N	10	16
	Total sample size	44	77
	Actual power	0.827	0.967
	Proportion p12	0.248	0.248
	Proportion p21	0.051	0.052

Note: Variables: Patient satisfaction scores = 4 (rate this hospital, plus 3 other dimensions: nurses' courtesy and respect, listening carefully, and understandable explanations); Predictor/Explanatory Variable. "G*Power 3: A Flexible Statistical Power Analysis Program for the Social, Behavioral, and Biomedical Sciences," by F. Faul, E. Erdfelder, A. Lang, and A. Buchner, 2007, *Behavior Research Methods, 39*(2), 175-191.

Patient inclusion criteria. According to CMS (2013), the following are the inclusion criteria for the HCAHPS survey. First, the patient respondent must be eighteen (18) years or older at the time of admission. Second, the patient stayed in the hospital for at least one overnight from admission. Third, the patient had non-psychiatric medical surgical-diagnosis-related group. Lastly, the patient was alive at the time of discharge.

Patient exclusion criteria. The following categories are exclusion criteria for the HCAHPS survey sample frame (CMS, 2013):

> Patients requesting that they not be contacted 'no-publicity patient' (must be retained for at least three years), court/law enforcements patients, patients with a foreign home address, discharged patients to hospice, and patients excluded because of state regulations (e.g. patients discharged to skilled nursing facility, certified Medicaid nursing facility, or skilled nursing facility swing bed within a hospital). (p. 47)

De-duplication. To lessen the burden of respondents monthly, the vendor or hospital must "de-duplicate eligible patients based on household and multiple discharges within the same calendar month" (CMS, 2013, p. 49). Only one household member is included in the sample frame of the HCAHPS survey in any given month. A patient discharged multiple times in a given month will be included once only in the sample frame (CMS, 2013).

In summary, patient experience and patient satisfaction became the spotlight of healthcare because the patients' perspective of their care drives part of the reimbursements for the hospital system. The purpose of the HCAHPS survey is to evaluate patient experience of care. Dissatisfied patients can contribute to negative patient outcomes and affect hospital reimbursements. The HCAHPS sampling protocol involves (a) including all patient discharges as population, (b) identifying eligible patients, (c) removing exclusions, (d) performing de-duplication, (e) determining the HCAHPS sample frame, and (f) drawing the sample (CMS, 2013).

Survey time. Centers for Medicare and Medicaid Services (2013) clearly indicated that after discharge, surveying of sampled patients should start between 48 and six weeks of sampled patients, irrespective of the mode of survey administration. Centers for Medicare and Medicaid Services issued the guidelines that strictly prohibit survey distribution (mail mode only in the hospital for the study) prior to discharging patients (CMS, 2013). Collection of data from patients in the sample frame must stop at the end of 6 weeks following the date of mailing the first survey (CMS, 2013).

Ethical Considerations

Although this quantitative, quasi-experimental study required little participant interaction with data collection, considerations of ethical principles was very important (Vogt, 2007). In medical research, Vogt (2007) indicated that clinical trial volunteers usually wanted to join the experimental group to get access to the new promising treatment. However, a counterargument was that the neediest, not the luckiest, should receive the extra resources (Vogt, 2007). Thus, two forces can come into conflict, the goal of determining whether treatments are effective versus social justice (Vogt, 2007). Imposing upon the individual's rights is often essential to advance scientific knowledge through research (Marczyk et al., 2005). In virtually all studies, they involved some degree of risk that ranged from slight embarrassment to much more severe effects on the emotional well-being of participants with human subjects (Vogt, 2007). In the name of scientific progress, Marczyk et al. (2005) suggested that these risks presented researchers with an ethical dilemma.

Marczyk et al. (2005) suggested that researchers should use the ethical codes as principles to address ethical dilemmas. In the *Belmont Report: Summary of Basic*

Principles, Marczyk et al. (2005) noted the three basic principles of respect for persons, beneficence, and justice recognizable easily in nursing practice. *Respect for persons* incorporates the ethical beliefs that individuals are autonomous agents and those less autonomous individuals are entitled to be protected (Marczyk et al., 2005). The consideration was that all participants in this study were autonomous agents. *Beneficence* refers to treating individuals ethically; a duty to respect individuals' decisions and to protect them from harm (Marczyk et al., 2005). In this respect, there was an obligation to maximize possible benefits, and minimize possible harms to all participants in this study (Marczyk et al., 2005). *Justice* refers to "fairness in distribution" (Marczyk et al., 2005, p. 238), and so the treatment was equal for all study participants.

The hospital's Institutional Review Board (IRB) ensured to address potential ethical concerns in all proposals before granting approval to conduct research. One important task in this study was to comply with all regulations of the relevant Institutional Review Boards. The documents submitted for review included the Institutional Review Board application and the Information Sheet for Research/Informed Consent (see Appendix A). In the Institutional Review Board application, the topics included consent to participate in the study, confidentiality of collected data, and protection of the participants' rights (Polit & Beck, 2012).

Assurance of confidentiality. Marczyk et al. (2005) indicated that it is the responsibility of the researcher to maintain the confidentiality of all information the law protects and any evidence that might compromise the dignity and privacy of research participants. Polit and Beck (2012) reiterated the awareness of the serious effects that breaches in confidentiality could have on research participants. This increased awareness

strengthened the position and commitment to design safeguards to protect it, and so the hospital's name and participants of the study remained confidential to the reader.

In all modes of HCAHPS survey administration, the survey vendor followed the following guidelines to confidentiality: (a) no cover letters attached to the survey, (b) the name of the respondent should not appear on the survey, and (c) no messages left by interviewers on answering machines to prevent violating the privacy of the respondent (CMS, 2013). The survey vendor of the site of the study was Press Ganey Associates. CMS (2013) compelled survey vendors to take multiple actions to protect patients' confidentiality. Press Ganey Associates used a password-protected entry system on confidential electronic and hard copy information and submitted a de-identified dataset to CMS to protect patient confidentiality (CMS, 2013). The staff from Press Ganey Associates and subcontractors complied with the Health Insurance Portability and Accountability Act regulations regarding protected health information for patients (PHI) (CMS, 2013).

Data security, retention, and storage. The third-party vendor, Press Ganey Associates, ensured that the returned mail paper questionnaires and responses to the survey were stored in a secure and environmentally safe location as required by CMS (2013). The vendor used a firewall to prevent unauthorized access to electronic files, and implement daily backup procedures to safeguard system data adequately (CMS, 2013). Press Ganey Associates tested its backup files every 3 months at a minimum, and would store discharge files and data, including patients' HCAHPS-related data files for a minimum of 3 years (CMS, 2013).

Consent process for nurse participants. Informed consent is an essential ethical process and is the foundation of the protection of human rights (Marczyk et al., 2005). The first step was to seek approval to conduct the study from the Quality Review Board of the University of Phoenix and then from the participating hospital by using the IRB Approval Letter from Participating Hospital (see Appendixes I and J). Second, the director of the cardiovascular institute of the hospital site provided permission to use premises, name, and recruit nurses with the use of the Premises, Recruitment, and Name (PRN) Use Permission form (see Appendix L). Nurses who voluntarily participated in the study signed the Informed Consent: Participants 18 Years of Age and Older form (see Appendix A), which revealed the informed consent process. Each participant who agreed to participate in the study signed and submitted the completed consent form to the nurse investigator. The information included the purpose of the research, an explanation of the research, a reassurance of anonymity, and a statement explaining voluntary participation. Explanations given to the nurses were clear of their ability to take part in the training without participating in the study. The results obtained from the questionnaire were confidential. The risk presented in the research study was no more than minimal risk of harm to subjects. The study involved no procedures for which a written consent is normally required outside of the research context, and maintained the confidentiality of all information.

As Vogt (2007) explained, researchers have the legal and moral obligations to inform the research subjects about any risks that could happen by participating in the study fully. The other information given to the participants were the amount of time necessary, voluntary participation, rights to withdraw, and the protection of all data.

After the nurse participants received the Nurse Self-report Verbal and Nonverbal Communication Skills Survey Pretest (see Appendix B) or Posttest (see Appendix C), they had an opportunity to decide if they would volunteer to participate or decline participation in the survey. The retention of the collected data for a period of 3 years was seriously thought of, as well as, the protection of the data by placing them in a locked cabinet in the researcher's office, after which the data will be, destroyed (Polit & Beck, 2012).

Consent process for patient respondents. For all eligible inpatient discharges, the survey vendor mailed them an initial cover letter (see Appendix E for Sample Initial Cover Letter for HCAHPS Survey) and the HCAHPS survey (CMS, 2013). The cover letter explained that the respondent would consent to participate by completing the survey (CMS, 2013). For Home Health Care CAHPS Survey mailings, the cover letter or the front or back of the survey included the OMB Paperwork Reduction Act Language (see Appendix G). OMB was the Office of Management and Budget. The survey vendor was responsible to administer and collect the survey (CMS, 2013).

Protection of human rights. Safeguarding the human rights of study participants was a very important endeavor during the research process. A clear instruction provided the details of the participants' involvement to ensure participants' awareness (Polit & Beck, 2012). Additionally, there were no physical or psychological risks to participants determined in the study.

Instrumentation

The evaluation of the estimated direct impact of a communication training intervention was through a nurse outcome measure, and the indirect impact of the training

was with a patient outcome measure. The nurse outcome measure focused on the evaluation of nurses' perceived level of their verbal and nonverbal skills before and after the training. For patients, outcome measure was through comparison of 2 months total of patient satisfaction scores with nurse communication and the overall hospital rating before the training and 2 months total after the training. To ensure the study results are accurate and generalizable, Drain and Alexander (2004) emphasized the importance to assess the validity and reliability of a survey instruments. The instruments selected to evaluate the effectiveness of a communication-training program are the Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS) Pretest (see Appendix B) and Posttest (see Appendix C) for the nurses, and the HCAHPS survey (see Appendix D) for the patients.

Nurse Self-Report Verbal and Nonverbal Communication Skills Survey (NSVNCSS). The NSVNCSS survey was a 22-item self-report questionnaire. This instrument was devised from a portion of a three-segment instrument developed and tested by Johnston et al. (2012) to measure the students' basic communication skills for education programs in health and human services. The first segment consisted of two video presentations to evaluate listening and recognition of verbal skills. The second segment, which was the origination of the NSVNCSS, was a self-report section consisting of 18 items assessing the verbal and nonverbal skills of the students (Johnston et al., 2012). The focus of the first nine items was on verbal skills and the other nine on nonverbal skills (Johnston et al., 2012). The third segment consisted of two written scenarios of both appropriate and inappropriate nonverbal expressions, for the learners to recognize (Johnston et al., 2012).

Johnston et al. (2012) indicated the potential uses of this instrument, such as an assessment tool for training courses in communication skills. In this research, questions 1-9 of the NSVNCSS were used to assess the nurses' perceived level of verbal skills; questions 10-18 assessed the nurses' perceived level of nonverbal skills, and the remaining four questions (19-22) were demographic questions (Johnston et al., 2012). The nurse participants indicated the degree to which each statement applied to them. A 4-point Likert-type scale was used as follows: "1 = strongly describes me, 2 = moderately describes me, 3 = slightly describes me, 4 = does not describe me at all" (Johnston et al., 2012, p. 3). This instrument was appropriate as an evaluation tool for the nurses' perception of their own communication skills because both verbal and nonverbal communications are essential mediums to transmit messages in nurses' daily work. Johnston et al. (2012) reported that during analysis, 11 of the items in the verbal and nonverbal segment were reverse scaled to keep the point award correct, which was also the case in this study.

Validity and reliability. The success of a quantitative research depends on accuracy and consistency in measurement. Macnee and McCabe (2008) asserted that a consistent measurement is a reliable and accurate measurement, or as Polit and Beck (2012) described it, a correct measurement is a valid measurement. Regarding the validity and reliability of the NSVNCSS instrument, Johnston et al. (2012) identified and constructed first the items in the self-report communication skills survey based on a literature review and the review of a number of instruments, and then the panel established the face validity. The instrument was then pilot tested and adjustments made

based on results. Reliability was determined through comparison to the pilot and to subject scores on established instruments assessing related content (Johnston et al., 2012).

To determine the existence of correlations within the instrument, correlations were conducted first (Johnston et al., 2012). There was significant correlations between the video and written segments (r = .269 and at the .01 level 2-tailed was significant) (Johnston et al., 2012). Study findings showed no significant relationships between the self-report segment and the scenarios in video and written format (Johnston et al., 2012). Initially the study involved the radiology, respiratory, and nursing departments. All three departments had an instrument in place to measure effective communication skills that could compare to the instrument developed by Johnston et al. (2012) when converted. However, only the nursing department had sufficient numbers for analysis (n = 89) (Johnston et al., 2012). The nursing department used the Interpersonal Process Recall (IPR) instrument as a pre- and post-test assessment in a course in communication skills (Johnston et al., 2012). Before the nursing students would start the communication skills course, the instrument developed by Johnston et al. (2012) was first administered and compared the results to the IPR pre-test scores (Johnston et al., 2012). Johnston et al. (2012) isolated the participants from the nursing department and compared the scores from their instrument and their IPR instrument data.

The IBM SPSS Version 19 was the software package used to analyze the data. Johnston et al. (2012) conducted a bivariate linear regression analysis to assess whether their communication instrument could predict performance on the IPR. The results indicated a linear relationship between the two variables (Johnston et al., 2012). The confidence interval for the slope was 95%, 0.485 to 0.832 does not contain the zero

value; therefore the scores in the communication instrument correlated to IPR scores significantly (Johnston et al., 2012). The accuracy in predicting IPR scores by the communication instrument was high (r = .62) (Johnston et al., 2012).

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey. The instrument chosen to measure the patients' variables was the HCAHPS survey (see Appendix D) (CMS, 2013). The HCAHPS survey was in use since 2006 as a method of data collection to measure the perception of patients of their hospital experiences. The survey is a 32-item survey that yields 11 publicly reported measures: seven multi-item measures and four single-item measures (CMS, 2015). The HCAHPS survey is a standardized survey instrument for collecting and reporting patients' hospital experiences information to the public (CMS, 2013). Nurse Communication (Question 1, Q2, Q3 in HCAHPS survey) is one of multi-item measures: nurses' courtesy and respect, listening carefully, and explain things in ways that patients can understand (CMS, 2013). CMS cleans and analyzes the data submitted to the HCAHPS data warehouse, then calculates hospitals' HCAHPS scores and report them to the public on the Hospital Compare website (CMS, 2013). The survey contains 21 items that ask "how often" rather than whether patients were "satisfied" with the care. The scale uses a 4-point Likert Scale: 1-never, 2-sometimes, 3-usually, and 4-always. The higher the score, the higher the frequency the desirable action or behavior occurs.

Centers for Medicare and Medicaid Services (2013) listed three broad goals of the HCAHPS survey development. First, the HCAHPS survey produces comparable patients' data on perspectives of care, which allows comparisons of important topics among hospitals that are meaningful to consumers. Second, the intention of public

reporting of survey results is to improve the quality of care and to create incentives for hospitals (CMS, 2013). Third, public reporting increases transparency and enhances public accountability in health care. These goals prompted the developers of this instrument to take substantial steps to assure credibility, usefulness, and practical use of the survey instrument (CMS, 2013).

Validity. Validity refers to the accuracy of the information that the measure yields about the true variable being studied (Macnee & McCabe, 2008). Drain and Alexander (2004) defined validity as "the extent to which a survey instrument measures what it claims to measure" (p. W4-8), or the extent to which the results of a survey are free from both systematic bias and random error (Polit & Beck, 2012). Most of the HCAHPS survey instrument's questions are modifications of CAHPS questions or survey questions of different hospitals on patient satisfaction (CMS, 2013).

Input from vendors and hospitals contributed to the modification of the HCAHPS instrument and data collection protocol (CMS, 2013). As part of the validation process of the HCAHPS survey instrument, CMS carried out a 3-state (Arizona, Maryland, and New York) pilot test at 132 hospitals with adult surgical, medical, and obstetric patients (CMS, 2013). Data collection involved a sample size of 49,812 inpatients between June 2003 and October 2003 (CMS, 2013). In the pilot study, CMS sent letters in advance to sampled patients, followed by a questionnaire after one week (CMS, 2013). The CMS staff sent a postcard to non-responding patients10 days after mailing the questionnaire for a follow-up (CMS, 2013). The staff from CMS followed up patients from core hospitals who continued not to respond by telephone for a maximum of five attempts to complete the interview (CMS, 2013). As the validation process of the HCAHPS survey instrument

was completed, Connecticut's legislation required comparison of patient satisfaction scores on all area hospitals. To meet the mandate CMS administered the 66-item version of the HCAHPS survey in English or Spanish to all 30 acute care hospitals (CMS, 2013). Eventually, CMS replicated the psychometric analysis of the HCAHPS instrument by using a sample from Connecticut and the 3-state pilot sample (CMS, 2013).

The psychometric properties of the revised HCAHPS questionnaire examined the samples in a 3-state pilot (Arizona, Maryland, and New York), N=19,568 and in Connecticut (CT), N=1,675 (CMS, 2013). The focus of the psychometric features of the revised HCAHPS measures was at the hospital level (basic unit for reporting HCAHPS survey measure) (CMS, 2013). CMS grouped the revised HCAHPS measures into the seven composites: "communication with nurses (n=3), communication with doctors (n=3), communication about medicine (n=2), nursing services (n=2), discharge information (n=2), pain control (n=2), and cleanliness and quietness of the physical environment (n=2)" (CMS, 2013, p. 56).

The basis of evaluation of the composites' construct validity was on how they affected the hospital's overall rating and whether the patient would recommend to others to use the hospital. The HCAHPS survey measure showed similar performance in the 3-state pilot and Connecticut data sets (CMS, 2013). The range of alpha coefficients in the 3-state pilot data file was from .51 to .88 and in the Connecticut sample was from .50 to .87 (CMS, 2013). Within both samples, the same four (communication with nurses, communication with doctors, nursing services, and pain control) of seven composites had alpha coefficients greater than .70 (CMS, 2013).

Reliability. Drain and Alexander (2004) referred the reliability of patient reports as "the consistency or reproducibility of a measure or the degree to which survey results are free from random error" (p. W4-8). Press Ganey Associates, Inc. (2013b) defined reliability testing as a process to measure the internal consistency of the questionnaire. CMS (2013) used Cronbach's alpha coefficient to project the reliability of the seven composites. Polit and Beck (2012) clarified that a set of questions with no reliability, and no internal consistency, possesses an alpha of 0.0, which indicates that within the scale, the questions might not measure the same issues; while a set of questions with an internal consistency that is perfect displays an alpha of 1.0. Drain and Alexander (2004) emphasized the importance of a reliable instrument because it reflects the respondent's true opinions better.

Modes of survey administration. The four modes that hospitals and survey vendors employ to survey patients are the mail or telephone only, mail with telephone follow-up, and the active interactive voice response (IVR) (CMS, 2013). According to CMS, the survey mode could affect patients' responses to the survey, which could also potentially affect comparisons of hospitals (CMS, 2013). The hospital site for this research used Press Ganey Associates as the survey vendor. Press Ganey Associates conducted the sampling process and complied with the regulations of the federal Health Insurance Portability and Accountability Act when transferring sample patient data with the client hospital (CMS, 2013). The survey vendor updated the patients' addresses, printed related HCAHPS materials, mailed the survey materials, process the survey data, and monitor, and mail the follow-up materials to non-respondents (CMS, 2013).

Data Collection Procedures

Nurse data. The communication training was available for all the nurses employed in two telemetry units of the study site; however, participation in the study was voluntary. The director of the cardiovascular institute encouraged the attendance of all nurses from the two telemetry units to ensure a consistent approach in communicating with patients. This decision was a part of a bigger effort to promote the reputation of the cardiovascular institute by improving the quality of services. The nurses who agreed to participate voluntarily in the study signed the Information Sheet for Research/Consent form, and then completed the NSVNCSS pretest (see Appendix B) before the training and posttest (see Appendix C) after the training anonymously. The lead author and developer of the questionnaire gave a written permission to use the questionnaire through the Permission to Use an Existing Survey (see Appendix H) (Johnston et al., 2012). The Informed Consent: Participants 18 Years and Older form contained pertinent information about the study purpose, design, duration, and that participation in the study was on a voluntary basis. Choosing not to participate in the research study did not affect the work or the nurse-patient assignment since the hospital management required all nurses from the selected units to attend the communication skills training.

Patient data. Patients' data involved access to, and use of a private, archival HCAHPS satisfaction scores from inpatient discharges on nurse communication and overall hospital rating from the database of Press Ganey Associates with the use of a password and user identification. Permission to access and use data was obtained with the use of the Data Access and Use Permission form from the hospital site (see Appendix K) and Press Ganey (see Appendix M). The patient sample included 2 months of patient

satisfaction scores from inpatient discharges on nurse communication and overall rating of the hospital before and a total of 2 months after the implementation of the nurse communication-training program. The researchers at Press Ganey Associates were responsible to collect, analyze, and compare the data to a national patient satisfaction mean score benchmark.

The mode of HCAHPS survey chosen by the hospital administration was the mail only survey. Data collection began between 48 hours and 6 weeks (42 calendar days) after the sample patient was discharged (CMS, 2013). CMS has set a waiting period of 48 hours before hospitals or survey vendors try to call discharged patient for the first time to give the patient a chance to get back home and feel settled (CMS, 2013). The survey vendor sent a first HCAHPS survey questionnaire (see Appendix D) with a cover letter (see Appendix E: Sample Initial Cover Letter for HCAHPS Survey) to sampled patients (CMS, 2013). The cover letter tailored to the CMS sample cover contained facts about the survey purpose, and that completion of the survey was on a voluntary basis (CMS, 2013). The survey vendor sent all sampled patients another survey with a follow-up thank you letter (see Appendix F: Sample Follow-up Cover Letter for HCAHPS Survey) in approximately 21 calendar days after mailing the first survey, if no response was received (CMS, 2013).

Validity of the Study

Quantitative researchers use several criteria to assess the quality and rigor of the study. One especially important criterion is validity. Polit and Beck (2012) explained that validity highlights the need to minimize or eliminate as much as possible the effects of confounding variables, extraneous influences, and any reasons that might detract the

findings from a study. Graziano and Raulin (2004) argued that validity is indicative of the degree of scientific soundness of the study. Validity is an important principle for evaluating methods to measure variables; and is significantly relevant to inferences about the effects of the independent variable on the dependent variable (Polit & Beck, 2012). Validity has four distinct types: internal validity, external validity, construct validity, and statistical conclusion validity (Marczyk et al., 2005).

Threats to internal validity. Internal validity refers to the ability of the design of research "to rule out or make implausible alternative explanations of the results" (Marczyk et al., 2005, p. 158), thus demonstrating the direct impact of the independent variable on the dependent variable and, ultimately, for the study finding results (Marczyk et al., 2005). Cone and Foster (2006) indicated that the most common threats encountered to internal validity are instrumentation, history, testing, selection bias, attrition, statistical regression, reaction of controls, and diffusion of treatment. One of the best ways to ensure internal validity on a research study is by random assignment (Marczyk et al., 2005); however, it was not practical for use in this study because of the nurses pre-assignment to the chosen patient units, so randomization was not possible.

The quasi-experimental design was a potential threat to this study's internal validity (Polit & Beck, 2012). A quasi-experimental, single-group design does not employ random assignment that provides for full control of extraneous variables, so one weakness of this study's design was the lack of random assignment (Polit & Beck, 2013). The investigator's position as the nurse manager of one of the training units was also a threat to the internal validity related to systematic selection bias and the influence of authority (Marczyk et al., 2005). Some nurses who participated but not highly motivated

might have affected the findings (Polit & Beck, 2012). Graziano and Raulin (2004) and Marczyk et al. (2005) indicated that selection biases could affect negatively the researcher's ability to make suggestions or recommendations based on the effects of the independent variable, so the focus of every effort was to mitigate or eliminate the effects of selection biases.

The use of pretests and posttests in quasi-experimental, nonequivalent comparison-groups design helps to establish if the groups may be different before conducting the study (Polit & Beck, 2012). This approach may give more confidence to the researcher when concluding that the independent variable was the cause of the changes in the dependent variable (Marczyk et al., 2005). The measure of the differences between groups before exposure to the communication intervention was with the use of a pretest (Marczyk et al, 2005). The pretest could reduce the threat of selection bias considerably by revealing whether there have been differences between groups on the dependent variable before the communication intervention (Marczyk et al, 2005).

Instrumentation can also pose a threat to internal validity when the investigator keeps changing the measuring instrument because this action also changes the assessment and scoring criteria of the independent variable over time (Marczyk et al., 2005). This instrumentation threat was not an issue in this study because a standardized communication assessment tool was used for pretest and posttest. Standardization establishes guidelines in administering and scoring of assessment tools (Marckzyk et al., 2005). Standardization encompasses the psychometric concepts of validity and reliability (Marckzyk et al., 2005).

The psychometric properties of the HCAHPS survey instrument were evaluated by conducting a pilot study in three states (Arizona, Maryland, and New York) and in Connecticut (CMS, 2013). The instrument was modified and refined multiple times based on feedback from different institutions and researchers (CMS, 2013). This instrument was reliable as it assessed the perception of patients about their hospital experiences in a consistent fashion and believed valid as it measured the intended metric (CMS, 2013). The researchers from the CMS recognized the necessity of establishing the reliability of the HCAHPS instrument because psychometrically sound and standardized instruments are least susceptible to instrumental effects (Marczyk et al., 2005).

Testing can be a threat to internal validity (Polit & Beck, 2012). When the discharged patients receive the same survey questions to measure the same variable several times, Marczyk et al. (2005) indicated that practice and memory sensitization might affect their performance. Vogt (2007) supported this claim and argued that testing, as an internal validity threat is common in longitudinal studies related to repeat testing and not the independent variable itself. This study's design was not to last for a long period, so the threat of testing in internal validity was not a major concern.

Another threat to internal validly is the diffusion or limitation of treatment often encountered in research that evaluates treatment effectiveness (Marczyk et al., 2005). This threat would manifest in different circumstances, such as, the accidental exposure of the control group to the actual communication training or similar program intended only for the experimental group (Marczyk et al., 2005). Since this study did not employ a control group, this threat was not a cause of concern. The other circumstance is when not providing the planned communication skills program to the experimental group (Marczyk

et al., 2005). The hospital administration mandated the training program for all nurses of the selected inpatient units of the community hospital so this threat was not an issue. Another consideration was that the hospital chosen to conduct the study experiences seasonal variation with patients migrating from the north to south. The facility was at risk for census variation because of a natural disaster, as the hospital is in a hurricane zone. History, which refers to particular experiences that may happen between the first and second measurement was also a threat to this study's internal validity (Polit & Beck, 2012).

Threats to external validity. Graziano and Raulin (2004) referred external validity as the extent to which study results can generally apply to other participants, sets of circumstances, and places. As explained by Marczyk et al. (2005) a stronger external validity indicates that the study results generalizability might apply to other populations, condition, and settings. The confounding variables and characteristics of the study, referred to as threats to external validity, can limit the generalizability of study results (Marczyk et al., 2005). Threats to external validity may include the characteristics of the sample, settings, and stimulus; experimental arrangements reactivity; interference to many treatments; sensitization to tests; and timing of measurement (Kazdin, 2003).

Reactivity of assessment posed a threat to the external validity of the study (Marczyk et al., 2005). Sample characteristic is a phenomenon where the study results apply only to a specific sample (Marczyk et al., 2005). The increased awareness of the nurse participants that they were taking part in the study could have had a significant effect on any of the obtained results (Marczyk et al., 2005). Polit and Beck (2012) explained that this is a common threat to external validity in most research studies

because of the informed consent requirement from participants prior to study participation. There was a chance that nurse participants responded differently in the face of experimental conditions than they normally would, which is common in psychological and medical treatment intervention studies (Marczyk et al., 2005).

Pretest and posttest sensitization was another threat to external validity of the study. Marczyk et al. (2005) referred this threat as the potential effects of pretesting and posttesting on the study participants' behavior and responses. The pretests assisted in evaluating the levels of the dependent variables before the administration of a communication intervention, and the posttests helped in determining the effectiveness of the intervention (Polit & Beck, 2012). There was a concern for a pretest sensitization, which means that the observed changes in the dependent variables were the contribution of the exposure of the participants to the pretest (Marczyk et al., 2005). The impact of the pretest on the external validity can have the same effect as a posttest measurement. Sensitization of participants by either measure makes the findings less generalizable (Marczyk et al., 2005).

Data Analysis

The steps in data analysis were data preparation, data analysis, and data interpretation (Marczyk et al., 2005). Data collection required logging and tracking of data as the information came in from the nurse participants' pretest and posttest measures (Marczyk et al., 2005). Prior to data analysis, the data from completed surveys involved screening for completeness and accuracy, and handing the missing data with listwise deletion (Polit & Beck, 2012). A data codebook provided a clear and comprehensive description of the variables included in the nurses' database (Marczyk et al., 2005). Data

analysis began with entering collected data into a well-structured database through SPSS version 23.

For purposes of data entry, the process included matching the pretest and posttest scores of nurse participants according to their self-created four-digit numbers. After data matching, the self-created numbers remained. This process allowed comparison of the impact of the communication-training program on individual participants (Polit & beck, 2012). The pretest and posttest assessment tool used in the communication training was the NSVNCSS. The first 18 questions assessed the nurse participants' perceived verbal and nonverbal communication skills and the remaining four (19-22) were demographic questions (Johnston et al., 2012). The participants indicated the degree to which the statement applied to them. The details of a 4-point Likert-type scale adopted from the communication skills instrument of Johnston et al. (2012) were as follows: "1 = strongly describes me, 2 = moderately describes me, 3 = slightly describes me, 4 = does not describe me at all" (Johnston et al., 2012, p. 3). During the study analysis, there was a need to reverse scale 11 of the 18 items to keep the point award accurate (Johnston et al., 2012).

For the inpatient data, the source of the patient satisfaction scores with nurse communication and the overall hospital rating for a total of 2 months before and 2 months after conducting the communication-training program for nurses was from database of Press Ganey Associates. This company was the third-party vendor used by the hospital site for this study. Both the hospital's director of the cardiovascular institute and a representative from Press Ganey Associates provided permission to access the patients' data.

In this research, the independent variable was a communication-training program intervention. The dependent variables were (a) nurses' perceived level of their verbal and nonverbal skills, (b) inpatients' perceived level of satisfaction with nurses' communication related to courtesy and respect, careful listening, and understandable explanations, and (c) inpatients' perceived level of the overall rating of the hospital.

The average of the total top-box scores of the three items on nurses' communication (courtesy and respect, careful listening, and understandable explanations) involved calculations to obtain the level of patient satisfaction with nurses' communication (CMS, 2013). The *p*-value was set for $p = .05$, which indicates a 5% probability that the finding is a coincidence (Marczyk et al., 2005). In general, Marczyk et al. (2005) indicated that statistical procedures are broken down into descriptive and inferential statistics. In inferential statistics, Polit and Beck (2012) explained that the researcher makes approximation, and tests hypotheses with the use of a sample. Descriptive statistics help to characterize accurately the variables under observation within specific sample and provide information about the sample's overall representativeness (Marczyk et al., 2005). The descriptive statistics for the study included frequencies and percentages, means, standard deviations, and standard error to compare participants' demographic characteristics pretest versus posttest (Marczyk et al., 2005). Means (commonly known as the average) and standard deviations were the descriptive statistics used on ratio and interval data (Howell, 2010).

For this study, the comparison of changes in nurses' perception of their verbal and nonverbal communication skills from pretest to posttest involved a paired sample *t*-test. The evaluation of changes in HCAHPS scores from inpatient discharges before and after

the communication training involved the use of the chi-square and an independent sample *t*-test (Marczyk et al., 2005). The HCAHPS scores collected were from different patients from two different groups. Since it was not possible to match the HCAHPS scores of patient respondents with participant nurses pretest and posttest, an independent sample *t*-test was the appropriate test to compare changes in mean score over time. This test is a conservative estimate of the statistical significance of change since it is a less powerful technique than a paired sample-*t*-test that accounts for individual differences. For nominal or ordinal data, the statistical tests conducted were the frequencies, medians, and percentages (Marczyk et al., 20005). The chi-square test proved useful in analyzing the statistically significant differences among categorical variables, and in summarizing the discrepancy between observed and expected frequencies (Marczyk et al., 2005).

Summary

Chapter 3 included a description of the quantitative, quasi-experimental study that involved examining the estimated impact of administering a communication-training program on nurses' self-reported verbal and nonverbal skills, inpatients' satisfaction with nurses' communication, and inpatients' perception of the overall rating of the hospital. This chapter also involved an overview of the study's variables, data collection, and procedures for data analysis. This study also covered examining and explaining the impact of the independent variable (communication-training program intervention), and the dependent variables, so the quantitative method was appropriate. The dependent variables were nurses' perceived level of their verbal and nonverbal skills, inpatients' perceived level of satisfaction with nurses' communication related to courtesy and respect, careful listening, and understandable explanations, and inpatients' perceived

level of the overall rating of the hospital. The quasi-experimental design was appropriate because it encompassed data collection before the intervention (pretest) and after the intervention (posttest) to provide quantifiable results of the relationship between the implementation of a communication-training program and the dependent variables.

Chapter 3 also involved explanations of the population and sample, bases of study participation, and data collection and analysis. The method used to collect the samples was a convenience-sampling method. The population included all registered nurses in the United States and all eligible inpatient discharges of all payer types who received care within general acute care hospitals in the nation. The other topics explored in this chapter were ethical considerations, human rights protection, confidentiality, and the procedures to recruit participants and methods to inform or obtain their consent. Also discussed was an overview of the instruments for data collection, along with their reliability and validity. Chapter 3 concluded with information about the techniques used for data analysis.

Chapter 4 follows with a report of the results of this one-group, pretest posttest quasi-experimental study. Other topics included in the next chapter are the statistical results and data analyses based on the research questions and hypotheses. The statistical data obtained after testing the research questions and hypotheses are illustrated in tables in the next chapter.

Chapter 4

Results and Findings

The purposes of this quantitative pretest-posttest quasi-experimental study were to assess the estimated impact of a communication training intervention on nurses' perceived level of their verbal and nonverbal skills, inpatients' perceived level of satisfaction with nurses' communication related to courtesy and respect, careful listening, and understandable explanations, and inpatients' perceived level of the overall hospital rating. All nurse participants attended a communication-training program immediately after the pretest and before the posttest. The emphasis of the study was to gain an understanding of how bedside nurses could improve on their verbal and nonverbal skills during their day-to-day encounters with patients and their families to improve the quality of care. The results from the data explain observed similarities and differences between each variable.

The review of literature in Chapter 2 established a basis for the implication of the research to patient satisfaction with nurse communication and health care institutions, and defended the indications to research the topic further. Chapter 3 contained a discussion of the research method and design, as well as their appropriateness for this study. For the purpose of this quantitative study, the one-group quasi-experimental design was appropriate because data included a pretest and a posttest. The instrument used to collect data from nurse participants was the Nurse Self-report Verbal and Nonverbal Communication Skill Survey (NSVNCSS), and the HCAHPS survey recorded data from patient respondents. Research questions studying five dependent variables (a) nurses' perceived level of their verbal and nonverbal skills, inpatients' perceived level of

satisfaction related to (b) courtesy and respect, (c) careful listening, and (d) understandable explanations, and (e) inpatients' perceived level of the global rating of the hospital examined whether assumptions were correct. The interpretation and analysis of data involved the use of descriptive statistics, such as comparison of participants' demographic characteristics pretest versus posttest. Primarily, chi-squares and *t*-test proved useful in testing the majority of the research hypotheses. Confirmatory factor analysis and Cronbach's alpha assessed estimates of reliability and construct validity of the nurse verbal and nonverbal communication instrument.

Chapter 4 contains an account of the evaluation processes, data, and the results of the statistical analyses performed, organized into two major phases. The first phase involved an investigation of the changes in nurses' perceived level of their verbal and nonverbal communication scores from pretest to posttest. This phase began with descriptive statistics of the nurses' gender, age, ethnicity, and highest education level, and ended with testing changes in the nurses' perception of their verbal and nonverbal communication scores from pretest to posttest. The second phase involved an investigation of the changes in the nurse communication HCAHPS composite scores and the hospital global rating over 2 months prior to the intervention to the 2 months following the intervention. This phase began with a description of the patients that completed the HCAHPS surveys prior to and after the intervention. An estimate of reliability and validity of the NSVNCSS questionnaire followed the second phase. This chapter concludes with a summary of the research results.

The catalyst for the research was the research questions, which also provided the structure for the study. The research questions were the following:

RQ1: What effect, if any, does a communication-training program have in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States?

RQ2: How does a communication-training program for nurses affect inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores?

RQ3: What is the effect of a nurse communication-training program in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores?

The three hypotheses formulated based on the above research questions were the following:

$H1_0$: A communication-training program will not result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

$H1_a$: A communication-training program will result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States.

$H2_0$: A communication-training program for nurses will not result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations as measured by HCAHPS scores.

$H2_a$: A communication-training program for nurses will result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related

to respect and courtesy, careful listening, and understandable explanations as measured by HCAHPS scores.

$H3_0$: A nurse communication-training program will not lead in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

$H3_a$: A nurse communication-training program will lead in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores.

Data Analysis

Phase 1: Changes in Nurses' Verbal and Nonverbal Communication Scores.

Demographics of nurse participants. The study sample included registered nurses (N=103) employed in two telemetry units of one hospital in southeastern United States. There were 105 registered nurses in the target population; 103 nurses consented to participate in the study and there was no attrition. The 103 nurses examined in this study completed the NSVNCSS questionnaire before and after the communication training intervention. Of the 103 nurses that participated in the training, 87 were female (84.5%) and 16 were male (15.5%). Participants reported their age by choosing from a set of age ranges. Forty-three participants (41.7%) reported they were between 20 and 30 years old, 26 participants (25.2%) reported they were between 31 and 40, 25 participants (24%) reported they were between 41 and 50; nine participants (8.7%) reported they were between 51 and 60, and no participants reported being over 60. The participants consisted of 17 persons who identified themselves as African American (16.5%), 21 as

Caucasian (20.4%), 31 as Hispanic (30.1%), 1 as American Indian or Alaskan Native (1%), 21 as Asian or Pacific Islander (20.4%), and 12 as other (11.6%).

The majority of the nurses that participated in this training (53 participants, 51.5%) held an Associate Degree in Nursing (ADN) /Associate of Science in Nursing (ASN). The second highest degree held by the participants (42 participants, 40.8%) was Bachelor of Science in Nursing (BSN). Four of the nurses (3.9%) had a Master of Science in Nursing (MSN) and two (1.9%) had doctorates.

In contrast to the national workforce data of registered nurses demographics from 2013 (Budden, Zhong, Moulton, & Cimiotti, 2013) and regional registered nurses supply data (Florida Center for Nursing, 2014), the sample in this study had a more ethnically diverse registered nurse population. There were three main differences between this sample population and those of the regional and the national workforce. The Hispanic/Latino participants composed 30.1% of the sample compared to 10.2% in Florida (Florida Center for Nursing, 2014) and the national average of 3% (Budden et al., 2013). The White/Caucasian participants composed only 20.4%, compared to 66% in the region (Florida Center for Nursing, 2014) and the national average of 83% (Budden et al., 2013). Lastly, the Black/African American participants composed 16.5% of this sample, compared to 13% in the region (Florida Center for Nursing, 2014) and the national average of 6% (Budden et al., 2013). Gender statistics showed that male nurses composed 15.5% of the sample, compared to regional of 10.6% (Florida Center for Nursing, 2014) and the national average of 7% (Budden et al., 2013). The following section presents the discussion of the results of preliminary psychometric analysis (reliability and validity) of the NSVNCSS questionnaire.

Testing gains in nurses' perceived level of verbal and nonverbal skills. Prior to analysis, calculation of a priori sample size was essential to determine the power of the study. An effect size of .35, power of .95, and alpha level of .05 required a minimum sample size of 90. The total number of nurse participants was 103. To ensure values were not missing in patterns, it was vital to examine the participants' data after transferring into SPSS 23. Missing data would lead to the exclusion of the entire case when one of the two administrations of any measure (pretest and posttest) was missing, a method called pairwise deletion. After close examination, no measure was missing so no exclusion of any case. The examination of the data collected answered the following research question.

Hypothesis testing–research question one. Research question one sought to answer the question, what effect, if any, does a communication-training program have in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States? Null hypothesis one was, a nurse communication-training program will not result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States. The dependent variables tested were the nurses' perceived levels of their verbal and nonverbal skills.

Discussion of findings for hypothesis one. The statistical test used to evaluate the null hypothesis by comparing pretest and posttest results was a paired sample *t*-test. The criterion for rejecting or failing to reject the null hypothesis was a probability level of p =.05 with a confidence interval of 95%. On the verbal subscale, the results of the paired

sample t-test revealed a statistically significant difference ($p < .001$) between pretest and posttest scores with intervention.

The verbal subscale increased from an average of 10.6 pretest to 12.12 posttest (1.52 improvement); [$t(100) = 8.07$, $p < .001$], with large effect size, $d = 1.61$. The score ranges from -11 to 16. Verbal subscale showed an improvement from 73rd percentile to the 82nd percentile.

The nonverbal subscale overall had lower scores but with a significant increase $p=$ <.001 as well. The nonverbal subscale increased from a pretest mean score of 2.54 to a posttest mean score of 3.76 (1.13 improvement); [t (100) = 7.15, p = <.001], and large effect size as measured by Cohen's d=1.43. The score ranges from -16 to11.

The total NSVNCSS scale mean score showed the largest statistically significant change ($p < .001$). There was a 3.28 improvement from nurses' pretest score of 12.6 to their posttest score of 15.88; [$t(100) = 10.35$, $p < .001$], and a large effect size, $d = 2.07$. Statistical analysis indicates that the implementation of a communication-training program showed statistically significant effect on the nurses' perceived level of their verbal and nonverbal communication skills. Based on the results, the null hypothesis was rejected. This means that the training made a difference.

Table 4

Changes in Pretest to Posttest Score on Nurse Verbal and Nonverbal Skills

	Pretest		Posttest				
	M	*SD*	*M*	*SD*	*t(100)*	*p*	*Cohen's d*
Verbal	10.06	4.05	12.12	3.36	8.07	<.001	1.614
Nonverbal	2.54	3.18	3.76	3.19	7.15	<.001	1.43
Total	12.6	6.42	15.88	5.49	10.35	<.001	2.07

Even with the low reliability and problems identified during the confirmatory factor analysis of the nonverbal subscale, there were statistically significant changes from the pretest to the posttest on the nurses' perceived verbal skill subscale, nonverbal skill subscale, and the total verbal and nonverbal skill scale score. However, the qualities measured were the nurses' perceptions and not the actual changes in communication skills. The observed changes in verbal and nonverbal scores from pretest to posttest may or may not reflect reality because they were subject to many biases, as they were the participants' perceptions.

Table 5

Verbal and Nonverbal Skill Questionnaire Scores Disaggregated by Highest Level of Education

	Pretest		Posttest	
	M	*SD*	*M*	*SD*
Level of Education				
Verbal				
Doctorate (2)	16	0	16	0
MSN (4)	13	2.65	15	1.41
BSN (42)	10.34	3.65	12.05	3.6
AND/ASN (53)	9.52	4.31	11.72	3.21
Nonverbal				
Doctorate(2)	8	0	8	0
MSN (4)	3.33	1.15	5.5	4.65
BSN (42)	1.98	2.92	3.26	2.99
AND/ASN (53)	2.71	3.4	3.79	3.22
Total				
Doctorate (2)	24	0	24	0
MSN (4)	16.33	3.51	20.5	4.65
BSN (42)	12.32	5.48	15.31	5.28
ADN/ASN (53)	12.23	7.1	15.51	5.53

Note. *M* = mean, *SD* = standard deviation, Numbers inside () indicate number of subjects for that level. Participant size for Doctoral=2, for MSN=4, BSN=42 and for ADN/ASN=53.

The improvements in nurses' perceptions of their verbal and nonverbal skills were further investigated. It was necessary to disaggregate the data by highest level of education. Even though the power was insufficient to run the statistical significant test on this disaggregated data due to diffusion of the cells, there were clear differences by education. As shown in Table 5, participants with higher levels of education also had higher communication scores for each of the scales on both the pretest and posttest. With every education level, except for the participants that had doctoral degrees, there was approximately a two-point increase from pretest to posttest on both the verbal and nonverbal subscales, suggesting an improvement of participants' perception of their own verbal and nonverbal skill across every level of education except those with doctorates. Of the 103 nurse participants, two participants did not provide their highest educational level and depending on the subscale, two or four participants did not complete enough items to get a verbal, nonverbal, or total scale totals.

Phase 2: Changes in Inpatients' Nurse Communication Satisfaction Scores.

Demographics of patient participants. The second phase of this research was the investigation of the changes in the HCAHPS patient satisfaction scores theorized to accompany the improvements in nurses' communication skills as perceived by the nurse participants (see Table 6). CMS had already excluded patients who met the exclusion criteria. Patients respondents to the HCAHPS survey were 81 before the communication intervention and 71 patients responded after. The patients' HCAHPS satisfaction scores on nurse communication for 2 months prior to conducting the communication training were compared to those of 2 months that followed the communication training.

Table 6

Demographics for Pretest and Posttest HCAHPS Scores

	Pretest		Posttest	
Demographic Variables	*f*	%	*f*	%
Gender				
Male	45	55.6	47	68
Female	36	44.4	24	34
Age				
30-40	4	4.9	0	0
41-50	5	6.2	2	2.8
51-60	14	17.3	16	22.5
61-70	14	17.3	15	21.1
71-80	29	35.8	19	26.8
81-90	14	17.3	6	8.5
Other	1	1.2	13	18.3
Education				
8th Grade or Less	3	3.8	4	5.5
Some High School	11	14.1	6	8.2
High School Grad	15	19.2	21	28.8
Some College	22	28.2	24	32.9
College Grad 4-year	12	16.7	9	12.3
College Plus	14	17.9	9	12.3
Race				
White	59	71.1	59	83.1
African American	14	16.9	8	11.3
Hispanic	11	15.1	15	22.1
Asian	3	3.36	2	2.8
Hawaiian / Pacific Islander	1	1.2	0	0
American Indian/Alaska Native	3	3.6	0	0

Note. Race could have a total greater than 100% since it was possible to be Hispanic and white or African American. Patients took the HCAHPS pretest in the months May to June, and the HCAPHS posttest in the months September to October.

The first section compared the demographic data obtained from different individuals. That is, patient data before and after the training program came from different groups; this is not the same as pre-testing and post-testing the same patients. Comparison of patient respondents' demographic characteristics pretest versus posttest

involved the use of descriptive statistics namely frequencies and percentages, means, standard deviations, and standard error.

As shown in Table 6, the patient respondents in the posttest group had a slightly higher proportion of male patients than did the patient respondents in the pretest group. The distribution of patients' age was approximately equal across both HCAHPS collection points. In the respondents in the pretest group, 17.9% of the patients had 4 years of college or more, compared to 12.3% of the patients in the posttest group. The majority of the patients surveyed in both the pretest group and the posttest were White, 71.1% and 83.1% respectively. Despite these slight differences, there were no statistically significant differences between the groups as measured by a Chi-square, $p > .05$. Research question 2 investigated changes in inpatients' HCAHPS satisfaction scores (pretest to posttest) for each of the three items that comprised the communication with nurses.

Hypothesis testing–research question two. Research question two sought to answer the question, how does a communication-training program for nurses affect inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores? Null hypothesis two indicated that a communication-training program for nurses would not result in a significant increase in inpatients' perceived level of satisfaction with nurses' communication related to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores. The first dependent variable tested was the level of patient satisfaction with nurses' respect and courtesy, followed by nurses' careful listening, and last was nurses' understandable explanations. The criterion

for rejecting or failing to reject the null hypothesis was a probability level of p =.05 with a confidence interval of 95%.

Out of the three variables, results showed that the administration of a nurse communication training revealed no significant differences on inpatients' perceived level of satisfaction related to nurses' careful listening (p = .185) and nurses' understandable explanations (p = .666). However, results indicated significant difference in the inpatients' perceived level of satisfaction related to nurses' courtesy and respect (p = .044) post training. The patient satisfaction scores in all three items in nurses' communication skills (courtesy and respect, careful listening, and understandable explanations) before the training had an initial average of 3.74 or more on a 4-point scale.

Discussion of findings for nurses' respect and courtesy. The statistical test used to examine the null hypothesis was an independent *t*-test. As shown in Table 7, there were significant increase (p = .044) in the nurse courtesy and respect scores; [t(149) = -2.03, p = .044], with a small to medium effect size, , d = .35. The null hypothesis indicating that a nurse communication-training program will not lead in a significant increase in the inpatients' perceived level of satisfaction with nurses' courtesy and respect was rejected, and supported the alternate hypothesis.

Discussion of findings for nurses' careful listening. The test used to evaluate the null hypothesis was an independent *t*-test. As shown in Table 7, the scores for nurses' careful listening had a slight but not statistically significant increase from 3.74 before the administration of the communication training to 3.84 after the training, t(149) = -1.33, p = .185. The score ranges from 1-4. The small effect size for nurse listening, d = .22, suggested a ceiling effect. The null hypothesis that a nurse communication-training

program would not lead to a significant increase in the inpatients' perceived level of satisfaction with nurses' careful listening was not rejected, and therefore not supporting the alternate hypothesis.

Table 7

Independent t-test of Changes from Pretest to Posttest on Nurse Courtesy and Respect, Nurse Listening, and Nurse Explaining HCAHPS Scores

	Pretest		Posttest				
	M	*SD*	*M*	*SD*	*t(149)*	*p*	*Cohen's d*
Courtesy	3.85	0.39	3.96	0.2	-2.03	0.044	0.35
Listening	3.74	0.52	3.84	0.4	-1.33	0.185	0.22
Explaining	3.77	0.53	3.8	0.44	-0.43	0.666	0.06

Discussion of findings for nurses' understandable explanations. Findings were not statistically significant (p=.666). The inpatients' satisfaction scores for nurses' understandable explanations also had a slight but not statistically significant increase from 3.77 before the communication training to 3.80 after the training, $t(149) = -.43$, $p = .666$ (see Table 7). The score ranges from 1-4. The small effect size for nurses' understandable explanations also suggested a ceiling effect, $d = .06$. The null hypothesis that a nurse communication-training program will not result in a significant increase in the inpatients' perceived level of satisfaction related to nurses' understandable explanations was not rejected. The alternate hypothesis was not supported.

To investigate further the distribution of HCAHPS score across the 4-point Likert-type scale, a crosstab was calculated. As shown in Table 8, there were positive gains in "Always" for nurse courtesy and respect and nurses' careful listening, with increases of 9.3% and 7.9%, respectively. Nurses' understandable explanations had a 0.1% decrease in the "Always" level but showed a 3.5% increase in the "Usually" level.

Table 8

Frequencies of HCAHPS Scores Changes from Pretest to Posttest on Nurse Courtesy and Respect, Nurse Listening, and Nurse Explaining

	Sometime		Usually		Always			
	f	%	*f*	%	*f*	%	$\chi 2(2)$	*p*
Courtesy and Respect								
Pretest	1	1.2	10	12.3	70	86.4	4.6	0.066
Posttest	0	0	3	4.3	67	95.7		
Listening								
Pretest	3	3.7	15	18.5	63	77.8	1.78	0.205
Posttest	1	1.4	9	12.9	60	85.7		
Explaining								
Pretest	4	4.9	11	13.6	66	81.5	1.7	2.13
Posttest	1	1.4	12	17.1	57	81.4		

Hypothesis testing–research question three. Research question three sought to answer the question, what is the effect of a nurse communication-training program in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores? Null hypothesis three was, a nurse communication-training program would not result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores. The variable tested was the inpatients' overall rating of the hospital.

Discussion of findings for overall hospital rating using HCAHPS scores. The null hypothesis was evaluated using a chi-square test where a score of 9 or 10 on the overall rating of the hospital was equal to a passing score and scores of 1 through 8 were considered not passing. The data on prior HCAHPS research showed highly skewed patient satisfaction toward favorable responses. So the 9 or 10 rating was the basis for comparison by using the chi-square test, rather than comparison of median or mean scores (Giordano et al., 2010; Press Ganey Associates, Inc., 2013c). As shown in Table

9, there was an increase in passing HCAHPS scores from 81.5% prior to the communication-training intervention and 86.8% after. However, this 5% passing rate was not statistically significant [$\chi 2(1)$, p = .191, overall rating of the hospital (OR) = 1.5], with a small effect size d=.27.

Table 9

Chi-square Test of Proportion of Rating HCAHPS Passes Prior to and After Communication Training

	Not Pass		Pass				
Stage	*f*	*%*	*f*	*%*	*χ2(1)*	*p*	*OR*
Pretest	15	18.5	66	81.5	0.764	0.191	1.5
Posttest	9	13.2	59	86.8			

Note. Not Pass = HCAHPS score 1-8, Pass = HCAHPS score 9 &10, OR = Overall Rating

Findings indicated that there was no significant difference (p = .191) in the inpatients' perceived level of the overall rating of the hospital from before to after the training. The null hypothesis that a nurse communication-training program will not result in a significant increase in inpatients' perceived level of the overall rating of the hospital as measured by HCAHPS scores was not rejected, and the alternate hypothesis was not supported.

As shown in Table 10, there was a high pretest average of 9.21 out of a possible 10 points, which reduced the possible effect size. A much larger sample size of approximately 327 (Faul, Erdfelder, Buchner, & Lang, 2009) would be required to have enough power to detect a significant change in the HCAHPS score. This high average score created a ceiling effect where only small changes are possible.

Table 10

Mean Rating HCAHPS Score Prior to and After Communication Training

	Pretest		Posttest	
	M	*SD*	*M*	*SD*
Average Rating HCAHPS Score	9.21	1.44	9.4	1.48

Psychometric Testing of the NSVNCSS Questionnaire

Steiger (2007) indicated that no instrument is ever valid or reliable. The instrument only has estimates of reliability and validity for that sample at that point in time (Steiger, 2007). Therefore, to make sure that this instrument was appropriate for this specific sample, it was necessary to assess the reliability and validity estimates using Cronbach's alpha and confirmatory factor analysis.

Reliability. The reliability (internal consistency) of the 18-item Nurse Self-report Verbal and Nonverbal Communication Skill questionnaire and its subscales involved the use Cronbach's alpha. Nunnally (1978) asserted that α of greater than .70 is acceptable. However, Kline (1999) suggested that a .60 is acceptable with new instrument development. The verbal and total subscales of the Nurse Self-report Verbal and Nonverbal Communication Skill questionnaire showed acceptable reliability, $\alpha = .746$ and $\alpha = .748$, respectively. However, the nonverbal subscale showed low unacceptable reliability, $\alpha = .345$. The wording of items 10, 15, 17, and 18 of the nonverbal scale are ambiguous and may need further revision. Discussion of this issue appears further in the confirmatory factor analysis section.

Construct validity. The assessment of construct validity of the NSVNCSS questionnaire was necessary using confirmatory factor analysis based on the two factors identified in the theoretical framework (see Figure 3), and their corresponding items. As

shown in this figure, there were nine items (V1-V9) that measured the latent construct of verbal communication and nine items (NV10-NV18) that measured the latent construct of nonverbal communication. Although some researchers suggested it is appropriate to use smaller sample sizes with confirmatory factor analysis, this sample size of 104 for the pretest and 104 for the posttest is on the low end of acceptable sample size (Byrne, 2010). Kline (2010) suggested a sample size of 300 or larger.

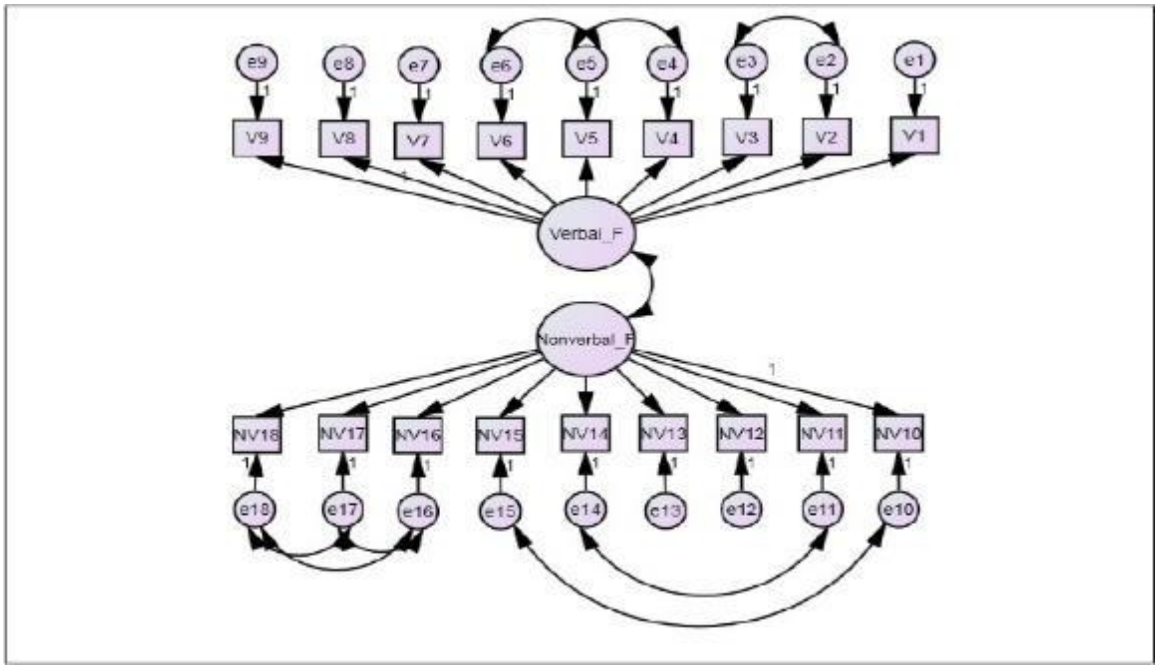

Figure 3. The Confirmatory Factor Analysis Using Factors Model. This model depicts the method of how the verbal and nonverbal items were theoretically loaded on the latent constructs. This model was loaded first prior to running the confirmatory factor analysis entertaining the structural weights. The creator of this model was the statistician for this study. The source of creation for this structural weights equation model was the IBM SPSS AMOS 23 program. © Copyright 2014 Amos Development Corporation.

There are several indicators of good model fit. One of the indicators that identified problems with the nonverbal scale was the structural weight presented in Figure 4 and Table 4. A standardized structural coefficient greater than .5 is good, greater than .3 is adequate, but less than .2 is problematic and suggests that the item does not fit the overall model (Byrne, 2010; Kline, 2010). As presented in Figure 4 and Table

4, all items for verbal were over .3 except for item 3 ("I am good at listening to others when they speak to me"), but its standardized coefficient was still greater than .2. The item was different from most of the verbal scale items because it is a listening skill, not a talking skill. All items 6-9 have coefficients greater than .5, indicating good fit.

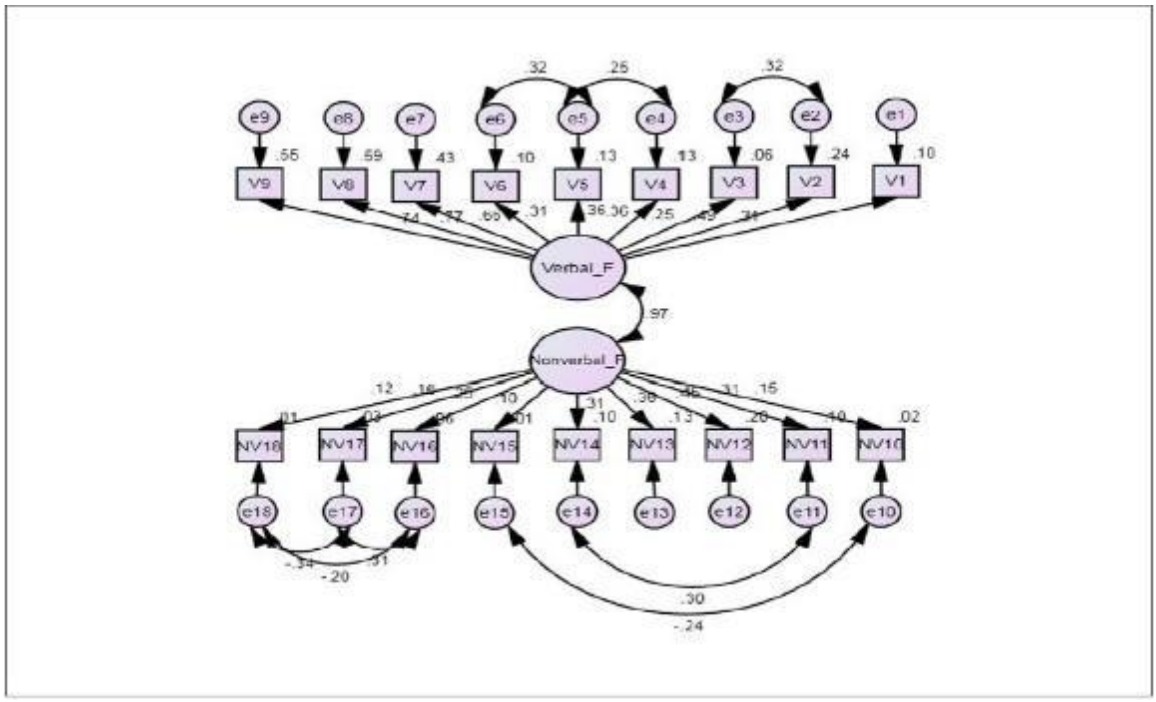

Figure 4. The Confirmatory Factor Analysis with Structural Weights Equation Model was designed to test the construct validity of the items as they load on to the verbal and nonverbal factor. The structural weights are the same as path weight or partial regression coefficients for multiple linear regressions calculated using the covariance structure of the data to minimize residuals and maximize prediction of the relationships between the items and the latent constructs of verbal and nonverbal factors. The creator of this model was this study's statistician and the source of creation for this model was the IBM SPSS AMOS 23 program. © Copyright 2014 Amos Development Corporation.

However, the standardized coefficients for the nonverbal scale indicated a problem. Items NV10, NV15, NV17, and NV18 all had standardized coefficients of less than .2 (see Table 11).

Table 11

Standardized Structural Coefficients for Each Item

Item#	Item	Reverse Scored	Scale	ß
V1	I often mispronounce words		Verbal	0.31
V2	I am able to clearly and concisely express my thoughts		Verbal	0.49
V3	I am good at listening to others when they speak to me		Verbal	0.25
V4	I often misunderstand what others are trying to say		Verbal	0.36
V5	I generally have to repeat myself several times for others to understand what I mean		Verbal	0.36
V6	I have difficulty remembering and following verbal instructions		Verbal	0.31
V7	I am able to give instructions clearly and concisely		Verbal	0.66
V8	I am comfortable taking charge of and leading a conversation		Verbal	0.77
V9	I am able to speak at different levels appropriate to my audience		Verbal	0.74
NV10	My facial expressions generally match my emotions when I speak to others	Yes	Nonverbal	0.15
NV11	I can tell when someone understands what I have said		Nonverbal	0.31
NV12	I rarely establish and maintain eye contact when I speak to someone		Nonverbal	0.45
NV13	I am comfortable touching others in professional encounters		Nonverbal	0.36
NV14	I can tell when I am standing or sitting too close to someone for their comfort		Nonverbal	0.31
NV15	My physical appearance (hairstyle, clothes, etc.) affects my ability to communicate	Yes	Nonverbal	0.1
NV16	I tend to move about or gesture excessively when I speak		Nonverbal	0.25
NV17	My voice tends to get louder if I am trying to make a point.	Yes	Nonverbal	0.16
NV18	The tone of my voice changes with my emotions	Yes	Nonverbal	0.12

Each of these items was ambiguous as to whether there was a right or wrong answer, which made it more subjective for the participants who responded to these items. For instance, in item NV10 (“My facial expressions generally match my emotions when I speak to others”), some people might think of this statement as being positive. For example, when reporting a death to the deceased’s family, or when speaking from a

leadership position, there are times when less emotional expressions might be more appropriate.

For future use of this scale, the suggestion was to develop further items NV10, NV15, NV17, and NV18. The overall fit of the model assessed through a set of fit indices (see Table 12) showed conflicting findings related to overall fit of the data to the theoretical model. The comparative fit index (CFI = 0.80) did not meet the score of .95 suggested by Hayduk, Cummings, Boadu, Pazderka-Robinson, and Boulianne (2007), nor the less conservative cutoff score of .90 (Bentler & Bonett, 1980).

Table 12

Fit Indices for Confirmatory Factor Analysis

Model	CFI	TLI	*χ2*	*df*	*χ2/df*	RMR	GFI	AGFI	RMSEA
Theoretical model	0.8	0.75	265.6	54	2.11**	0.062	0.87	0.83	0.07
Independence model	0	0	822.6	153	5.38**	0.22	0.23	0.16	0.21

Note. CFI = Comparative Fit Index, TLI= Tucker Louise, χ^2 = Chi-square, df = degrees of freedom, χ^2/df= Normative Chi-Square, RMR= Root Mean Residual, GFI = Goodness of Fit, AGFI = Adjusted Goodness of Fit, RMSEA = Root Mean Square Error of Approximation. ** $p < .01$

The root mean square error of approximation was .07, which met the critical value of .07, indicative of a good fit (Steiger, 2007). The normative Chi-square also suggested a good fit with acceptable ranges of χ^2/df falling between 2 and 4, χ^2/df = 2.11 (Byrne, 2010). Both the root mean residual and the standardized root mean square residual indicated a good fit, root mean square residual = 0.06, standardized root mean square residual =.08. The goodness of fit index and the adjusted goodness of fit index (see Table 12) fell slightly below the acceptable .90 suggested cutoff, goodness of fit index = 0.87, adjusted goodness of fit index = .83. However, the consensus is to avoid using the goodness of fit index or the adjusted goodness of fit index in assessing overall fit because

of the effects of the sample size and the complexity of the model (Sharma, Mukherjee, Kumar, & Dillon, 2005).

The overall instrument had an appropriate alpha, $\alpha = .748$. Only the nonverbal subscale had a low alpha, $\alpha = .345$. Therefore, it was this researcher's decision to interpret the results gained from this subscale. The reliability and validity for this specific sample was only calculable after using the tool for data collection. Prior to data collection, there was no information to assess the psychometric properties of the instrument. The construct validity as measured by the confirmatory factor analysis was low, but the normed or relative Chi-square was very good, comparative fit index = .80, $\chi 2/df = 2.11$. The root mean square error approximation = .07, was also good, again suggesting the appropriateness of using this instrument.

Summary of the Quantitative Research

The study involved a quantitative method that examined the estimated impact of a communication-training program on nurses' perception of their own verbal and nonverbal skills, patients' perceived level of satisfaction with nurses' communication related to courtesy and respect, careful listening, and understandable communications, and patients' perception of the level of the overall rating of the hospital. Chapter 4 began with a report of the results of the nursing communication training and the demographic data of the nurse participants. The internal consistency indicated that the overall NSVNCSS questionnaire and the verbal subscale had adequate reliability. However, issues with the nonverbal subscale reliability arose. Confirmatory factor analysis showed marginal model fit on several indices and poor fit on others. Items 10, 15, 17, and 18 on the nonverbal subscale were problematic and in need of revision. Despite these issues with

the nonverbal subscale, there were significant improvements in the perceived level of verbal and nonverbal communication skills of nurses as measured by the verbal, nonverbal, and total scale score from pretest to posttest of the NSVNCSS questionnaire.

The second phase involved examination of the changes in HCAHPS patient satisfaction scores from pretest to posttest. It is important to note that the data and information obtained from the HCAHPS survey came from different persons. The patient data obtained before and after the training program came from different groups of individuals, and that is not the same as pre-testing and post-testing the same patients. Nevertheless, there were no significant differences within the demographic variables of gender, age, ethnicity, or highest level of education from the patients surveyed before the communication intervention and those surveyed after.

Nurses' courtesy and respect showed statistically significant improvements on the HCAHPS satisfaction scores pertaining to nurses' communication. However, both satisfaction scores on nurses' careful listening and nurses' understandable explanations showed no significant improvements. On the overall HCAHPS rating, scores for global hospital rating had a 5% increase in the proportion of patients reporting a passing score of nine or 10. This result was not statistically significant (p=.191). Ceiling effect was a factor of consideration for the limitations in showing positive statistical changes on the HCAHPS scores in the nurse communication items and in the global hospital rating. There was not much room for improvement because the pre-intervention communication scores were at least 3.74 out of 4, and the global hospital rating had an average of 9.2 out of 10. Chapter 5 includes the recommendations for future work and conclusions based on

the findings of the study. The chapter also involves the summary and significance of the study.

Chapter 5

Conclusions and Recommendations

The major focus in Chapter 5 is to provide a summary based on study findings, conclusions, and recommendations. Discussion in this chapter also expounds on the study's limitations, implications, and suggestions for future studies. The purposes of this quantitative, one-group quasi-experimental study were to assess the effectiveness of a communication-training program regarding (a) nurse participants' perceptions of how the communication intervention affected their communication skills, (b) patients' perceptions of nurses' communication skills, and (c) patients' overall perceptions of the hospital.

At the time of a hospital visit, the interactions between the patient and the healthcare professionals can influence the patient's view of the quality of care (Chilgren, 2008). Patient experience is such a high priority because patients with optimal experience are more engaged in their care, more willing to share information, ask questions, and respond to teaching related to their illness and prescribed treatment (CMS, 2013; Press Ganey Associates, Inc., 2013b). The patients' overall perception of the quality of care can predict whether they will return to a facility, endorse the organization to their families or friends, or sue as necessary regarding legal matter (CMS, 2013).

Summary of Results

This quasi-experimental study examined the effect of a communication-training program on nurses' perceived level of their own verbal and nonverbal skills and patients' perceived level of satisfaction with nurse communication, and patients' perception of the overall rating of the hospital. Two important steps in this research were to obtain an Institutional Review Board approval from the University of Phoenix to conduct the study

and from the Institutional Review Board office at the hospital where to carry out the study. One-hundred three registered nurses from two telemetry units participated in the study voluntarily. All nurse participants signed an informed consent before participating in the study with explanations on how to withdraw if they decided to do so as the study began. Of the 103 nurse participants, none withdrew from the study. To ensure ethical practice, participation in the study involved no coercion of the subjects. Other measures observed to protect the subjects were not to use their names and not to identify the name of the hospital site of the study.

The evaluation of results and performance of statistical processes included two phases. The first phase involved an investigation in the perceived level of verbal and nonverbal communication skills of nurses from pretest to posttest. The results showed significant improvements as measured by the verbal, nonverbal, and total scale score from pretest to posttest of the NSVNCSS questionnaire.

The second phase investigated the changes in inpatients' perceived level of satisfaction with the component items of nurses' communication in the HCAHPS survey and the patients' perception of the overall hospital rating from before to after the communication intervention. The data obtained before and after the training program came from different groups of individuals. There was no notation of significant differences within the demographic variables of gender, ethnicity, age, or highest level of education from the surveyed patients. With regard to nurses' courtesy and respect item in nurse communication, there was a statistically significant improvement on the HCAHPS satisfaction scores. However, both satisfaction scores on nurses' careful listening and nurses' understandable explanations revealed no significant improvements from pretest to

posttest. For the hospital global rating, the scores had a 5% increase in the proportion of patients reporting a passing score of nine or 10 on the overall HCAHPS rating, which was not statistically significant (p = .191).

Discussion of Findings

Demographic data findings for nurse participants. The assessment of external validity and generalization of results involved the demographic data to determine if the sample population was comparable regionally and nationally. The demographic data findings of the nurse participants indicated that the study sample had a more ethnically diverse registered nurse population in contrast to the regional and national workforce. There were three main differences identified between this sample population and those of the regional and national workforce. The Hispanic/Latino participants composed 29.8% of the sample compared to 10.2% regional average (Florida Center for Nursing, 2014) and 3% national average (Budden et al., 2013). The White/Caucasian participants composed only 20.2%, compared to 66% regional average (Florida Center for Nursing, 2014) and 83%national average (Budden et al., 2013). Last, the Black/African American nurse participants composed 16.3% of this sample, compared to regional average of 13% (Florida Center for Nursing, 2014) and national average of 6% (Budden et al., 2013). Gender statistics revealed that male nurses composed 15.5% of the sample, compared to 10.6% regional average (Florida Center for Nursing, 2014) and 7% national average (Budden et al., 2013).

Demographic data findings for patient respondents. Demographic data findings showed that there were slightly higher proportions of male patients in the posttest group than in the pretest group. Age distribution was approximately equal across

both HCAHPS collection points. In the respondents in the pretest group, 17.9% of the patients had 4 years of college or more, compared to 12.3% of the patients in the posttest group. The majority of patients surveyed in both the pretest group and the posttest were White, 71.1% and 83.1% respectively. Despite these slight differences, there were no statistically significant differences between the groups as measured by a chi-square, $p > .05$.

Hypothesis Testing Findings and Interpretations

Hypothesis one. The independent variable in research question one was the communication-training program and the dependent variables were the nurses' perceived levels of their verbal and nonverbal communication skills. Null hypothesis one indicated that a nurse communication-training program would not result in a significant increase in the perceived level of verbal and nonverbal communication skills of nurses at one urban hospital in the southeastern United States. The test used to evaluate the null hypothesis was a paired sample *t*-test. The probability level for hypothesis testing was a *p* value of .05. For both measures of verbal subscale and nonverbal subscale, the findings were statistically significant. The nonverbal subscale had lower scores but also showed significant improvements. The total scale had the largest statistically significant findings after the intervention. This finding showed that the communication-training program was associated with the increased levels of perceived verbal and nonverbal skills of the nurse participants. Data analysis in chapter 4 indicated the null hypothesis was rejected.

Findings were consistent with previous studies by Hudon, Fortin, Haggerty, Lambert, and Poitras (2011), where the results revealed that training the nurses showed improvements in communicating effectively with patients. Raica (2009) evaluated the

effectiveness of a training to develop the confidence f of nurses and assertiveness in communication by using a quasi-experimental, one-group pretest-posttest design. Findings suggested that the training program helped nurses develop their confidence and assertive communication skills. Ya-Hsuan et al. (2014) also used an experimental design to evaluate the nurses' communication skills with a scenario-based simulation with patients suffering from myocardial infarction, and the results showed that the training helped the nurses to acquire better communication skills, which could lead to improved patient outcomes.

This finding supports the use and implementation of a communication-training program in educating nurses to develop effective communication. However, it is important to note that the demonstrated changes in levels of nurses' verbal and nonverbal skills were perceptions, so they were subject to many biases and they may not reflect necessarily the actual changes in their communication skills. This means that the observed changes in scores from pretest to posttest might or might not reflect reality. Recognizing the needs for training, repeated practice, and refining of nurses' communication skills, health care leaders seek opportunities to optimize nurses' potential to become good communicators (Krimshtein et al., 2011).

Hypothesis two. The three variables tested were the levels of inpatients' satisfaction with nurses' communication related to (a) courtesy and respect, (b) careful listening, and (c) providing understandable explanations. Null hypothesis two indicated that, a communication-training program for nurses would not result to a significant increase in inpatients' perceived level of satisfaction with nurses' communication related

to respect and courtesy, careful listening, and understandable explanations measured by HCAHPS scores.

Independent *t*-tests, comparing the scores of one group of patient respondents from before the communication intervention and another group after the intervention indicated (a) significant improvement in nurses' courtesy and respect scores, (b) slight increase in nurses' careful listening scores, and (c) slight increase in scores on nurses' understandable explanations. The data analyses in Chapter 4 indicated the null hypotheses on nurses' careful listening, nurses' understandable explanations were not rejected, and alternate hypotheses not supported. Nevertheless, the null hypothesis on nurses' courtesy and respect measured by HCAHPS scores was rejected and alternate hypothesis supported. A previous qualitative study by Yap et al. (2012) found that there were considerable similarities in the perceptions of courtesy and respect by nurses and patients.

Findings showed that the communication-training program intervention had a statistically significant effect on patients' perceived level of satisfaction with nurses' courtesy and respect. However, there were no statistically significant effects on patients' perceived level of satisfaction with nurses' careful listening and nurses' understandable explanations as measured by HCAHPS scores post intervention. This finding is concerning for hospitalized patients, nurses, and hospital administrators, and is inconsistent with what Bach and Grant (2009) indicated that listening and giving information are essential skills to develop therapeutic relationship. However, McCabe and Timmins (2006) noted how challenging to develop relationship because of lack of available time. Additionally, Gallagher (2007) found the significant effect of ethnicity

and culture on perceptions of behaviors associated with courtesy and respect. Patients and their family members appreciate if nurses gave them their complete attention (Press Ganey Associates, Inc., 2010). With regard to understandable explanations, patients look back at each specific encounter with nurses to recall if communications were clear and effective in solving the problems about their care (Press Ganey Associates, Inc., 2010). In another study by Langewitz et al. (2010), results showed that effective communication helped resolve patients' concerns and questions, and alleviated their fears. In all three items of nurse communication (nurses' courtesy and respect, careful listening, and understandable explanations), the initial satisfaction score average was 3.74 or greater on a 4-point scale. The small effect size for nurses' careful listening and providing understandable explanations suggested a ceiling effect.

Hypothesis three. The third hypothesis addressed the dependent variable, patients' perceived level of the overall rating of the hospital, measured by HCAHPS scores. A Chi-square was used to test the HCAHPS scores on the overall rating of the hospital where receiving a 9 or 10 on this global measure was equal to a passing score and a score of 1 through 8 was considered not passing. The passing HCAHPS scores showed a 5% increase from before the training implementation to after the training intervention, but were not statistically significant. Data analysis in Chapter 4 showed the null hypothesis was not rejected.

One reason the effect size was small was a high average score of 9.21 before the training out of a possible 10. The study findings indicated that the communication-training program intervention had no statistically significant effect in the inpatients' perceived level of the overall rating of the hospital post intervention. Findings were

inconsistent with the study findings by Press Ganey Associates, Inc. (2013c), which revealed a positive influence of improved communication with nurses with the overall rating of the hospital. Improved nurse communication also enhanced the quality of services and patient safety (Press Ganey Associates, Inc., 2013c).

Note that the patient data collected were from two different groups of patients. While the two groups might have been similar on selected demographic variables, the study design did not include control for other factors that might have influenced what the two groups of patients reported. According to clinical trial protocols, there must be no difference in the participants of the two groups (Polit & Beck, 2012). In the site for this study, no inpatient units were available where the target populations were comparable at baseline, and so the decision was not to use a control group.

Limitations

A major limitation for the study is the administration of the communication training intervention in only one geographic local hospital in the southeastern United States with a convenience and relatively homogeneous group of telemetry nurses. The hospital setting was especially unique in terms of organizational structure and culture, and so the convenience sample was not representative of the larger population of nurses working in hospitals, which may limit the generalization of the findings to other hospitals. The bases of the communication-training program design were limited to findings and recommendations of previous research studies on nurse communication and the communication with nurses' items in the HCAHPS survey tool.

Another major limitation was the insufficient time to conduct the study. The changes with the items in nurse communication (careful listening and understandable

explanations), and in the overall rating of the hospital showed no significant improvements on the HCAHPS satisfaction scores from 2 months total before and 2 months total post training. The lack of sufficient time limited the ability to perform a series of posttests and compare results such as 1, 3, 6, and 12 months after the training (Polit & Beck, 2012). The actual change in behavior of the nurse participants was not measured. This may indicate insufficient time for significant changes of behavior of the nurse participants to occur in these measured variables (courtesy and respect, careful listening, and providing understandable explanations), as well as in the global overall hospital rating. There was not enough time to capture the necessary behavior change. An ongoing longitudinal study is required to ascertain the potential changes of these variables over time. In addition, the initial HCAHPS satisfaction scores in the above-mentioned measured variables were higher than expected.

Limitations in showing positive statistical changes on any of the HCAHPS satisfaction scores in the nurse communication items or in the overall rating of the hospital could be attributed to ceiling effects. There was not much room for growth since the average pre-intervention communication score was above 3.74 out of four and an average of 9.2 out of 10 for the global hospital rating. This high average score creates a ceiling effect where only small changes are possible. To have enough power to detect a significant change in the HCAHPS satisfaction score, a much larger sample size of around 327 would be required for future research (Faaul et al., 2009).

There were other limitations considered in the quantitative study. First, as discussed in Chapter 1, this study involved no control group, as there were no two intact and similar groups of nurses and patients found within the hospital. There was no way to

control for outside pressures influencing general increases in HCAHPS scores independent of the administration of the communication training. It might be necessary to conduct the study in other inpatient hospitals and add a control group to augment the disadvantage in which the researcher could not completely be sure that the administration of communication-training program was the cause of the changes in the dependent variables (Marczyk et al., 2005; Polit & Beck, 2012).

Second, it was not possible to match the changes in HCAHPS satisfaction scores to the changes in a specific nurse's perceived level of his or her verbal and nonverbal skills. The data did not demonstrate actual changes in communication skills of the nurse participants, but rather, their perceived level of their communication skills. In general, multiple nurses interact with each patient in the clinical areas. This limitation is very challenging, but very interesting to be the focus for future research.

Third, changes in nurses' level of verbal and nonverbal communication skills were self-reported. The observed changes in scores from pretest to posttest may or may not reflect reality; they are perceptions and are subject to many possible biases. It is possible that the nurse participants responded differently as a result of the attention they received from the researcher rather than because of manipulation of the independent variable (Hawthorne effect) (Polit & Beck, 2012). Careful investigation of how to mitigate or eliminate the possibility of Hawthorne effect would be time well spent.

Fourth, data collection involved the Likert-type scale, which uses rankings for measurement. According to Field (2013), using rankings for measurement can produce ordinal level of measurement. Ordinal data analysis is limited to descriptive statistics by

calculating the mean, range, median, variances, and the standard deviation (Polit & Beck, 2012), unless various population averages are calculated.

Conclusions of the Study

Conclusion one. Study findings showed significant improvements in nurses' individual perceptions of their verbal and nonverbal communication skills after attending the communication-training program as measured by the nurses' self-reported verbal, nonverbal, and total score from the pretest to posttest. These findings supported the concepts of the CLEAR Communication model. However, it is important to note that the views measured were the nurses' perceptions and not the actual changes in nurses' communication skills. The nurses' data did not demonstrate the actual changes in the nurses' communication skills, but relatively the nurses' perceptions of their verbal and nonverbal skills. The observed changes in verbal and nonverbal scores from pretest to posttest may or may not reflect reality; they are perceptions and subject to many possible biases.

Conclusion two. Study results showed statistically significant improvement in inpatients' satisfaction scores for nurses' courtesy and respect on nurses' communication from before to after the communication-training program. However, there was lack of significant findings on inpatients' satisfaction scores on nurses' careful listening and nurses' understandable explanations. Whether the improvement in satisfaction scores for nurses' courtesy and respect was the beneficial impact of administering a communication program to nurse participants was questionable. The addition of a control group to the basic pretest-posttest design was not feasible, and so unknown confounders could have biased the results.

Conclusion three. The overall rating of the hospital had a 5% increase in passing HCAHPS score from before to after the communication intervention but was not statistically significant. This result indicated that the communication-training program had no statistically significant effect on the level of the overall hospital rating. The presence of confounding factors could have also influenced the results. It is important to note that different persons provided the patient data. That is patient data before and after the training came from different groups of patients, and this is not the same as pre-testing and post-testing the same patients.

Regarding the demographic variables of patient respondents (gender, age, ethnicity, or highest level of education), the results showed no significant differences from the patients surveyed before the training program and those surveyed after the training period. While the two groups of patients might have been similar on selected demographic variables, no control was employed for other factors that might have influenced what the two groups of patients reported. The basis for not using a control group was the lack of two intact groups of inpatient units that were similar. Every inpatient unit had unique populations' characteristics (number, diagnoses, severity of illness, length of stay, and nursing workload requirement) that might contribute to significant between-group differences. The lack of intact and similar groups was a source of concern for internal validity threat of selection (Polit & Beck, 2012). Furthermore, in clinical nursing research environment, it is often nearly impossible to keep the nurse participants separate in the training and control group (Marczyk et al., 2005). There was a risk that the participants in the control group might learn the contents of the training program and use them if the subjects work in the same unit. The adequate assessment of

the changes in patients' perceptions of the nurse communication or hospital rating would need multiple data points before and after the intervention program.

Implications and Inferences

This quantitative study involved a systematic research process to develop a new communication-training program. Since the study had not been developed and validated, it provided a methodical contribution on the body of nursing knowledge. Based on the composite items of the nurse communication domain (courtesy and respect, careful listening, and understandable explanations) of the HCAHPS survey, and together with the literature review, the nurse researcher developed a communication-training program that included a nurse-patient communication model and an evaluation of its effectiveness.

The present research provided information, which could be useful to the leaders of one large urban hospital in the southeastern United States and elsewhere. The research also established information on the direct impact that communication skills training could have on the level of nurses' perception of their verbal and nonverbal skills. The data also assisted in answering questions about the estimated impact of the training on the inpatients' perceived level of satisfaction with nurses' courtesy and respect, careful listening, and understandable explanations, and the inpatients' perceived level of the overall hospital rating. The impact of the communication training to nurses' perception of their communication skills was significant, as indicated by the information from data analysis. The findings of this research have implications to health care leaders as well as to nursing practice.

Nursing practice. The results of the investigation on changes in patient satisfaction scores in nursing communication from pre-intervention to post-intervention

revealed that there were significant gains in nurses' courtesy and respect as perceived by hospitalized inpatients, and slight increases in nurses' careful listening and explaining things clearly. In health care settings, effective nurse-patient communication is fundamental to effective patient-centered care; however, the effectiveness of training provided to nurses to promote and enhance nurse communication with patients is unknown (Mullan & Kothe, 2010; Norgaard et al., 2012; Smith & Pressman, 2010). The study is important in that it is the first research conducted based on a conceptual framework that integrated the researcher-developed model, The CLEAR (Courteous Listening, Explaining, and Respectful) Communication Model and Watson's human caring theory (Watson, 2002).

Findings in a study by Muray et al. (2002) showed that cardiac patients with advanced progressive illnesses complained that nurses were poor communicators. Despite a focus on good communication, serious communication problems persisted between health care professionals and patients (Norgaard et al., 2012). The CLEAR Communication model is an effective tool in promoting the purpose for a deeper human caring for nurses, and in advancing communication competence in nursing practice. Watson's (1985) theory in human caring assisted in understanding the behaviors involved in nurse-patient communication as advocated by CMS (2013). Understanding the needs of hospitalized patients is a crucial prerequisite for nurses to provide individualized nursing care and to develop an effective communication-training program.

Training and education for clinical nurses. The study findings revealed that there were significant gains in nurses' perceived level of their verbal and nonverbal skills from pretest to posttest as measured by the Verbal and Nonverbal Communication Skills

Survey questionnaire. The changes in the verbal subscale, nonverbal subscale, and total scale scores were statistically significant. Effective and collaborative communication is the foundation of any healthcare team because it is vital to the safety and well-being of patients (Baer & Weinstein, 2013; Keefer, 2011; Mazor et al., 2013). However, healthcare programs do not prioritize the achievement of good communication skills (Keefer, 2011). This is true in the pre-service training of nurses, continuing education, and the in-service training of nurses (Smith & Pressman, 2005). It is important for healthcare educators or clinical specialists to contemplate on this quantitative study's implications, and develop ingenious methods to incorporate the findings of this research in communication-training programs.

The study findings also revealed that participants with higher levels of education had higher communication scores for each of the scales on both the pretest and posttest except for the participants that had doctoral degrees. These results suggest potential improvement in the participants' perception of their own skills across every level of education except those with doctorates. The developed communication skills training program was learner-centered and incorporated the need for comprehensible pronunciation, skills in active listening, sensitivity to nonverbal communication, and the use of professional medical language in place of medical jargon.

In the nursing profession, a patient-centered communication approach is a best practice (McCabe & Timmins, 2006). The lack of or insufficient training in communication skills could contribute to serious nursing problems, such as, ineffective nurse-patient communication, overworked nurses, emotional burnout, and job dissatisfaction (Smith & Pressman, 2010). Health care leaders should not ignore these

nursing issues because they could lead to failed collaborative work and negative patient outcomes (McCaffrey et al., 2012).

Health care leaders. Improvement in nurses' perception of their verbal and nonverbal skills may reflect reality and could lead to increased patient satisfaction scores in communication with nurses. All hospitalized patients' satisfaction scores related to courtesy and respect, careful listening, and understandable explanation experiences by nurses, and the level of the overall hospital rating showed improvements from pretest to posttest. Hospital administrators at the study site were supportive of this research because they recognized the potential of communication- training program in improving both the perceived and actual communication skills of the nurse participants. Effective communication skills are indeed necessary to provide quality nursing care (van Weert et al., 2011). Several research studies revealed the relationship between effective communication skills through training programs and improved patient outcomes (McCaffrey et al., 2012; Ya-Hsuan et al., 2014). Positive outcomes of effective communication with patients include a sense of protection and safety, increased recovery rates, greater adherence to treatment options, and improved levels of patient satisfaction (Schoenfelder et al., 2011).

Healthcare leaders must provide clinical nurses with continuing education and training in communication to improve the patient perception of safety and quality of care, and to influence positively the hospital's overall rating (CMS, 2013). Effective communication skills are learned behaviors in the workplace or schools and are rarely inherent (Keefer, 2011). Communication training programs can help improve nurses'

confidence and competence in providing effective and skilled nurse-patient communication (van Weert et al., 2011; Ya-Hsuan et al., 2014).

Summary. The impetus for conducting this study arose from obvious concerns of the healthcare industry to provide high quality and safe care. Nurses often lack self-confidence when they explain their opinions in caring and managing patients, which poses a significant threat to patient safety and the quality of care (Kirby, 2010; Raica, 2009). This research involved the development of a communication-training program for nurses by integrating the principles of The CLEAR (**C**ourteous **L**istening, **E**xplaining, **A**nd **R**espectful) Communication Model with Watson's human caring theory (Watson, 1985) as the overall foundation of the study. Training programs are valuable to develop the essential communication skills to provide safe and quality nursing care (Fukui et al., 2010; Johnston et al., 2012; Kruijver et al., 2000b).

Effective communication involves collaboration and interaction among health care professionals and workers, patients, and their families (Kirby, 2010), and is a crucial factor in providing high-quality care, increasing professional satisfaction, and in improving patient outcomes (Fukui et al., 2010; Kirby, 2010; Press Ganey Asssociates, Inc., 2013b: Studer Group, 2007). Communication skill training enhances the participants' competence and confidence in providing psychosocial support to patients and their families (van Weert et al., 2011). However, not all training methods are equally effective (Chant et al., 2002b; Kruijver et al., 2000b; Parry, 2008). Fellowes, Wilkinson, and Moore (2004) noted that communication trainings that only included lecture and theory are ineffective. In this study, the researcher recognized the relevance and importance of both experiential and participatory activities in communication skills

training to attain the desired results as suggested by Parry (2008), so the trainers used these techniques in the training, together with scenario-based simulation, role-play, and PowerPoint presentation.

One-hundred three registered nurses employed from two telemetry units of the hospital selected to conduct the study completed the training. The goal was to improve the nurses' perceptions of their own communication skills. One major focus in the study was to evaluate the effectiveness of the CLEAR Communication model in changing the behaviors of the nurses when they communicate with patients and their families, and in understanding how the nurses may come across to the patients. The information gathered from data analysis revealed that the administration of a communication-training program improved significantly the nurses' perceived level of their verbal and nonverbal skills.

There were also improvements in the inpatients' satisfaction scores in nurse courtesy and respect in communication with the nurses and in the overall hospital rating. These results confirmed the positive changes in the nurses' perceived level of their verbal and nonverbal communication skills and reinforced the effectiveness of the training. The efficacy of the training in communication for nurses explored in cardiovascular care and the experience gained in the implementation of the training program provided valuable information for future research, and compelling evidence for administrators in the hospital where this study was conducted to provide communication skills training to all clinical nurses and other employees in the healthcare system.

Recommendations for Future Research

Data findings from this study showed significant improvements in the level of nurses' perceptions of their verbal and nonverbal skills from pretest to posttest despite the

problems identified with the nonverbal subscale during the confirmatory factor analysis. Results also showed that nurse participants with higher levels of education also had higher level of self-reported communication scores of their verbal and nonverbal skills for each scale on both pretest and posttest. However, future trainings might need modifications to the nonverbal subscale of the NSVNCSS questionnaire. The standardized coefficient, which was lower than .2 for the nonverbal subscale indicated a problem in items NV10, NV15, NV17, and NV18. Each of these items was ambiguous to either a right or wrong answer making it more subjective for the respondents. Further development of the above-mentioned items of the NSVNCSS questionnaire will benefit the future users of this scale.

Another recommendation for future research is to measure the actual behavior change of the nurse participants, perform a series of posttests, and compare results such as, 1, 3, 6, and 12 months after the communication training. Replicate this study in hospitals with regular low levels of HCAHPS satisfaction scores particularly with the items with nurses' communication and the hospital rating and determine the occurrence of ceiling effect. Since the changes in HCAHPS scores could not be matched with changes in specific nurse's perceived communication level, this phenomenon may be interesting to be the focus for future research.

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Appendix A

Informed Consent: Participants 18 Years of Age and Older

Dear Nurse,

My name is Edna Trepanier, a student at the University of Phoenix working on my Ph.D. in nursing. I am inviting you to take part in my research study. I am conducting a research study entitled ***"Impact of Communication Training on Nurses' Verbal and Nonverbal Skills and Patient Satisfaction."*** The purpose of this study is to test whether a training program improves nurses verbal and nonverbal communication skills. The study will also measure whether this skills training impacts patient satisfaction results from HCAHPS public reporting from Press Ganey on nursing communication and overall hospital rating. Only two nursing units within an unnamed hospital are offered the training program.

Your participation in the training sessions will take no more than 6 hours (total). There will be three sessions. Each session is between one to 2 hours. You are free to take part in the training without taking part in the study. The program is offered free to participants. If you agree to participate, I will ask you to complete a self-reporting paper survey before and after the training program. The survey tool should take about 5 to 10 minutes to complete. There are some additional demographic and educational background questions captured.

To keep the results anonymous, I ask you to select a four-digit number (avoid 1-2-3-4) that is meaningful to you and that you can remember but hard for others to guess. Put this number (Your four-digit number: ___ ___ ___ ____) on the top right of the first page of each survey. By doing this, I can compare the impact of the training on individual participants. To help you remember your number, please write it on the index card provided to you. Keep it for the posttest. The results obtained from the questionnaire are confidential. The study is risk-free, and all the information will be confidentially maintained.

I will not collect personally identifying information. You can decide to be a part of this study or not. Once you start, you may withdraw from the study at any time. Whatever you decide, you will not lose any benefit or be penalized. If you decide to withdraw from this study after survey submission, you may contact me via telephone or email. The four-digit number you created will need to be reported at this time in order to remove your survey submission from the data collected. This decision will not affect your relationship with the researcher or the hospital. Once the results of the survey are analyzed, you cannot withdraw your data. All survey results will remain confidential. I may share or publish the results of this study.

In this research study, there are no foreseeable risks to you. I cannot guarantee you will personally benefit from taking part in the study. However, you may personally benefit from the knowledge learned in the training. The training may expand if the results of this study show improvement in patient satisfaction scores.

If you have any questions about the research study, please call me at (xxx)-xxx-xxx (office), (xxx)xxx-xxxx (cell) or email me at xxxx@xxxxx. For questions about study participant rights, or any concerns or complaints, please contact the University of Phoenix Institutional Review Board via email at IRB@phoenix.edu. You can also contact the Xxxxxxx Xxxxxx Xxxxxx Institutional Review Board Chairman at (xxx) xxx-xxx.

As a participant in this study, you should understand the following:

1. You may decide not to be part of this study or you may want to withdraw from the study at any time. If you want to withdraw, you can do so without any problems.
2. Your identity will be kept confidential.
3. Edna Trepanier, the researcher, has fully explained the nature of the research study and has answered all of your questions and concerns.
4. Data will be kept in a secure and locked area. The data will be kept for 3 years at the researcher's office in a fireproof safe with only the researcher having access to the data. After 3 years, the data will be destroyed by shredding.
5. The results of this study may be published.

"By signing this form and by selecting that you agree to participate in the study you understand the nature of the study, the possible risks to you as a participant, and how your identity will be kept confidential. When you sign this form and you select to participate, this means that you are 18 years old or older and that you give your permission to volunteer as a participant in the study that is described here."

(Select ONE)

(☐) I agree to participate in the study. (☐) I do not agree to participate in the study.

Signature of the participant _____ _____Date _____

Signature of the researcher _____Date _____

Appendix B

Nurse Self-report Verbal and Nonverbal Communication Skills Survey

Pretest

Self-created Number: __ __

__ __

Nursing Unit: _____

The *Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS* is designed to identify the level of agreement to which nurses rate themselves with each of the following statements on verbal and nonverbal skills. This survey consists of 22 questions (1-18 self-report verbal and nonverbal skills and 19-22 demographics).

Part I: Self-report Verbal and Nonverbal Skills
Instructions: The following questions ask about your self-report level of verbal and nonverbal skills. Please rate your level of agreement with each of the following statements as they apply to you with the succeeding choices.

4 – Strongly describes me
3 – Moderately describes me
2 – Slightly describes me
1 – Does not describe me at all

Verbal Skills Segment

1. I often mispronounce words.....4 3 2 1

2. I am able to clearly and concisely express my thoughts.....4 3 2 1

3. I am good at listening to others when they speak to me.....4 3 2 1

4. I often misunderstand what others are trying to say.....4 3 2 1

5. I generally have to repeat myself several times for others to understand what I mean.....4 3 2 1

6. I have difficulty remembering and following verbal instructions.....4 3 2 1

7. I am able to give instructions clearly and concisely.....4 3 2 1

8. I am comfortable taking charge of and leading a conversation 4 3 2 1

9. I am able to speak at different levels appropriate to my audience.....4 3 2 1

4 – Strongly describes me
3 – Moderately describes me
2 – Slightly describes me
1 – Does not describe me at all

Nonverbal Skills Segment

10. My facial expressions generally match my emotions when I speak to others.....4 3 2 1

11. I can tell when someone understands what I have said 4 3 2 1

12. I rarely establish and maintain eye contact when I speak to someone.....4 3 2 1

13. I am comfortable touching others in professional encounters. 4 3 2 1

14. I can tell when I am standing or sitting too close to someone for their comfort.....4 3 2 1

15. My physical appearance (hairstyle, clothes, etc.) affects my ability to communicate.....4 3 2 1

16. I tend to move about or gesture excessively when I speak. 4 3 2 1

17. My voice tends to get louder if I am trying to make a point.....4 3 2 1

18. The tone of my voice changes with my emotions.....4 3 2 1

Part 1I: Demographics

Instructions: Each of the questions below asks information about your demographic and educational background. Please select the most accurate choice from those provided, for questions requiring a specific response. Please fill in the blank for the questions that require specific information.

19. Age:
    (1) 20-30
    (2) 31-40
    (3) 41-50
    (4) 51-60
    (5) 60+
20. Gender:
    (1) Female
    (2) Male

21. Ethnicity/Race
    (1) African American
    (2) Caucasian
    (3) Hispanic
    (4) American Indian or Alaskan Native
    (5) Asian or Pacific Islander
    (6) Other

22. Highest level of education earned:
    (1) Doctorate
    (2) MSN
    (3) BSN
    (4) ADN/ASN

Appendix C

Nurse Self-report Verbal and Nonverbal Communication Skills Survey

Posttest

Self-created Number: __ __

__ __

Nursing Unit: _____

The *Nurse Self-report Verbal and Nonverbal Communication Skills Survey (NSVNCSS)* is designed to identify the level of agreement to which nurses rate themselves with each of the following statements on verbal and nonverbal skills. This survey consists of 22 questions (1-18 self-report verbal and nonverbal skills and 19-22 demographics).

Part I: Self-report Verbal and Nonverbal Skills
Instructions: The following questions ask about your self-report level of verbal and nonverbal skills. Please rate your level of agreement with each of the following statements as they apply to you with the succeeding choices.

4 – Strongly describes me
3 – Moderately describes me
2 – Slightly describes me
1 – Does not describe me at all

Verbal Skills Segment

1. I often mispronounce words.....4 3 2 1

2. I am able to clearly and concisely express my thoughts.....4 3 2 1

3. I am good at listening to others when they speak to me.....4 3 2 1

4. I often misunderstand what others are trying to say.....4 3 2 1

5. I generally have to repeat myself several times for others to understand what I mean.....4 3 2 1

6. I have difficulty remembering and following verbal instructions.....4 3 2 1

7. I am able to give instructions clearly and concisely.....4 3 2 1

8. I am comfortable taking charge of and leading a conversation.....4 3 2 1

9. I am able to speak at different levels appropriate to my audience.....4 3 2 1

4 – Strongly describes me
3 – Moderately describes me
2 – Slightly describes me
1 – Does not describe me at all

Nonverbal Skills Segment

10. My facial expressions generally match my emotions when I speak to others.....4 3 2 1

11. I can tell when someone understands what I have said 4 3 2 1

12. I rarely establish and maintain eye contact when I speak to someone.....4 3 2 1

13. I am comfortable touching others in professional encounters. 4 3 2 1

14. I can tell when I am standing or sitting too close to someone for their comfort.....4 3 2 1

15. My physical appearance (hairstyle, clothes, etc.) affects my ability to communicate.....4 3 2 1

16. I tend to move about or gesture excessively when I speak. 4 3 2 1

17. My voice tends to get louder if I am trying to make a point.....4 3 2 1

18. The tone of my voice changes with my emotions.....4 3 2 1

Part 1I: Demographics

Instructions: Each of the questions below asks information about your demographic and educational background. Please select the most accurate choice from those provided, for questions requiring a specific response. Please fill in the blank for the questions that require specific information.

19. Age:
    (1) 20-30
    (2) 31-40
    (3) 41-50
    (4) 51-60
    (5) 60+

20. Gender:
    (1) Female
    (2) Male

21. Ethnicity/Race
    (1) African American
    (2) Caucasian
    (3) Hispanic
    (4) American Indian or Alaskan Native
    (5) Asian or Pacific Islander
    (6) Other

22. Highest level of education earned:
    (1) Doctorate
    (2) MSN
    (3) BSN
    (4) ADN/ASN

Appendix D

HCAHPS Survey

SURVEY INSTRUCTIONS

- You should only fill out this survey if you were the patient during the hospital stay named in the cover letter. Do not fill out this survey if you were not the patient.
- Answer all the questions by checking the box to the left of your answer.
- You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☐ Yes

☑ No → **If No, Go to Question 1**

You may notice a number on the survey. This number is used to let us know if you returned your survey so we don't have to send you reminders. Please note: Questions 1-25 in this survey are part of a national initiative to measure the quality of care in hospitals. OMB #0938-0981

Please answer the questions in this survey about your stay at the hospital named on the cover letter. Do not include any other hospital stays in your answer.

YOUR CARE FROM NURSES

1. During this hospital stay, how often did nurses treat you with courtesy and respect?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

2. During this hospital stay, how often did nurses listen carefully to you?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

3. During this hospital stay, how often did nurses explain things in a way you could understand?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

4. During this hospital stay, after you pressed the call button, how often did you get help as soon as you wanted it?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I never pressed the call button

YOUR CARE FROM DOCTORS

5. During this hospital stay, how often did doctors treat you with courtesy and respect?

   ☐ Never
   ☐ Sometimes
   ☐ Usually
   ☐ Always

6. During this hospital stay, how often did doctors listen carefully to you?

   ☐ Never
   ☐ Sometimes
   ☐ Usually
   ☐ Always

7. During this hospital stay, how often did doctors explain things in a way you could understand?

   ☐ Never
   ☐ Sometimes
   ☐ Usually
   ☐ Always

THE HOSPITAL ENVIRONMENT

8. During this hospital stay, how often were your room and bathroom kept clean?

   ☐ Never
   ☐ Sometimes
   ☐ Usually
   ☐ Always

9. During this hospital stay, how often was the area around your room quiet at night?

   ☐ Never
   ☐ Sometimes
   ☐ Usually
   ☐ Always

YOUR EXPERIENCES IN THIS HOSPITAL

10. During this hospital stay, did you need help from nurses or other hospital staff in getting to the bathroom or in using a bedpan?

    ☐ Yes
    ☐ No → If No, Go to Question 12

11. How often did you get help in getting to the bathroom or in using a bedpan as soon as you wanted?

    ☐ Never
    ☐ Sometimes
    ☐ Usually
    ☐ Always

12. During this hospital stay, did you need medicine for pain?

    ☐ Yes
    ☐ No → If No, Go to Question 15

13. During this hospital stay, how often was your pain well controlled?

    ☐ Never
    ☐ Sometimes
    ☐ Usually
    ☐ Always

14. During this hospital stay, how often did the hospital staff do everything they could to help you with your pain?

    ☐ Never
    ☐ Sometimes
    ☐ Usually
    ☐ Always

15. **During this hospital stay, were you given any medicine that you had not taken before?**

- ☐ Yes
- ☐ No → **If No, Go to Question 18**

16. **Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?**

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

17. **Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?**

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

WHEN YOU LEFT THE HOSPITAL

18. **After you left the hospital, did you go directly to your own home, to someone else's home, or to another health facility?**

- ☐ Own home
- ☐ Someone else's home
- ☐ Another health facility
  → **If Another, Go to Question 21**

19. **During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?**

- ☐ Yes
- ☐ No

20. **During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?**

- ☐ Yes
- ☐ No

OVERALL RATING OF HOSPITAL

Please answer the following questions about your stay at the hospital named on the cover letter. Do not include any other hospital stays in your answers.

21. **Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?**

- ☐ 0 Worst hospital possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10 Best hospital possible

22. **Would you recommend this hospital to your friends and family?**

- ☐ Definitely no
- ☐ Probably no
- ☐ Probably yes
- ☐ Definitely yes

UNDERSTANDING YOUR CARE WHEN YOU LEFT THE HOSPITAL

23. **During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left.**

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

24. **When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.**

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

25. **When I left the hospital, I clearly understood the purpose for taking each of my medications.**

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree
- ☐ I was not given any medication when I left the hospital

ABOUT YOU

There are only a few remaining items left.

26. **During this hospital stay, were you admitted to this hospital through the Emergency Room?**

- ☐ Yes
- ☐ No

27. **In general, how would you rate your overall health?**

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

28. **In general, how would you rate your your overall mental or emotional health?**

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

29. **What is the highest grade or level of school that you have completed?**

- ☐ 8th grade or less
- ☐ Some high school, but did not graduate
- ☐ High school graduate or GED
- ☐ Some college or 2-year degree
- ☐ 4-year college graduate
- ☐ More than 4-year college degree

30. **Are you Spanish, Hispanic or Latino origin or descent?**

- ☐ No, not Spanish/Hispanic/Latino
- ☐ Yes, Puerto Rican
- ☐ Yes, Mexican, Mexican American, Chicano
- ☐ Yes, Cuban
- ☐ Yes, other Spanish/Hispanic/Latino

31. **What is you race? Please choose one or more.**

- ☐ White
- ☐ Black or African American
- ☐ Asian
- ☐ Native Hawaiian or other Pacific Islander
- ☐ American Indian or Alaska Native

32. **What language do you mainly speak at home?**

- ☐ English
- ☐ Spanish
- ☐ Chinese
- ☐ Russian
- ☐ Vietnamese
- ☐ Portuguese
- ☐ Some other language (please Print): _____

THANK YOU

Please return the completed survey in the postage-paid envelope.

[NAME OF SURVEY VENDOR OR SELF-ADMINISTERING HOSPITAL]

[RETURN ADDRESS OF SURVEY VENDOR OR SELF-ADMINISTERING HOSPITAL]

Appendix E

Sample Initial Cover Letter for HCAHPS Survey

[HOSPITAL LETTERHEAD]

Name
Address
City, State, Zip

Our records show that you were recently a patient at {*name of hospital*} and discharged on {*date of discharge*}. Because you had a recent hospital stay, we are asking for your help. This survey is part of an ongoing national effort to understand how patients view their hospital experience. Hospital results will be publicly reported and made available on the Internet at www.xxxxxx.gov. These results will help consumers make important choices about their hospital care, and will help hospitals improve the care they provide.

Questions 1-22 in the enclosed survey are part of a national initiative sponsored by the United States Department of Health and Human Services to measure the quality of care in hospitals. Your participation is voluntary and will not affect your health benefits.

We hope that you will take the time to complete the survey. Your participation is greatly appreciated. After you have completed the survey, please return it in the pre-paid envelope. Your answers may be shared with the hospital for purposes of quality improvement.

If you have any questions, please call the toll-free number 1-800-xxx-xxxx. Thank you for helping to improve health care for all consumers.

Sincerely,

HOSPITAL ADMINISTRATOR
HOSPITAL NAME

***Note**: The OMB Paperwork Reduction Act language must be included in the mailing. This language can be either in the cover letter or on the front or back of the questionnaire. Please refer to Appendix J for the exact OMB Paperwork Reduction Act language and Section VII—Mail Only, and Section IX—Mixed Mode, for specific letter guidelines.*

Appendix F

Sample Follow-up Cover Letter for HCAHPS Survey

[HOSPITAL LETTERHEAD]

Name
Address
City, State, Zip

Our records show that you were recently a patient at {*name of hospital*} and discharged on {*date of discharge*}. Approximately 3 weeks ago, we sent you a survey regarding your hospitalization. If you have already returned the survey to us, please accept our thanks and disregard this letter. However, if you have not yet completed the survey, please take a few minutes and complete it now.

Because you had a recent hospital stay, we are asking for your help. This survey is part of an ongoing national effort to understand how patients view their hospital experience. Hospital results will be publicly reported and made available on the Internet at www.xxxxx.gov. These results will help consumers make important choices about their hospital care, and will help hospitals improve the care they provide.

Questions 1-22 in the enclosed survey are part of a national initiative sponsored by the United States Department of Health and Human Services to measure the quality of care in hospitals. Your participation is voluntary and will not affect your health benefits. Please take a few minutes and complete the enclosed survey. After you have completed the survey, please return it in the pre-paid envelope. Your answers may be shared with the hospital for purposes of quality improvement.

If you have any questions, please call the toll-free number 1-800-xxx-xxxx. Thank you again for helping to improve health care for all consumers.

Sincerely,
HOSPITAL ADMINISTRATOR
HOSPITAL NAME

Note: The OMB Paperwork Reduction Act language must be included in the mailing. This language can be either in the cover letter or on the front or back of the questionnaire. Please refer to Appendix J for the exact OMB Paperwork Reduction Act language and Section VII—Mail Only, and Section IX—Mixed Mode, for specific letter guidelines.

Appendix G

OMB Paperwork Reduction Act Language

The Office of Management and Budget (OMB) Paperwork Reduction Act language below must be included in the Home Health Care CAHPS Survey mailings. It can be included in the cover letter or on the front or back of the questionnaire. It does not need to be included in both the cover letter and the questionnaire.

ENGLISH

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-1066. The time required to complete this information collection is estimated to average 12 minutes per response, including the time to review instructions, search existing data sources, and gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop C1-25-05, Baltimore, Maryland 21244-1850.

Appendix H

Permission to Use an Existing Survey

University of Phoenix®

PERMISSION TO USE AN EXISTING SURVEY

Date: August 28, 2014

From: Author Name:
Author Address: [redacted]

To: Researcher Name: Edna Trepanier

Thank you for your request for permission to use a 22-item (18-item self-report verbal and nonverbal communication skills and 4-item demographics) pretest and posttest survey instrument in your research study. We are willing to allow you to access, use and reproduce the above named instrument at no charge with the following understanding and in accordance with the following terms and conditions:

- You will use this survey only for your research study and will not sell or use it with any compensated management or curriculum development activities.
- You will send your research study and one copy of reports, articles, and related publications that make use of this survey data promptly to our attention.

If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and returning it to us.

Sincerely,

James Johnston
[redacted]
Author Signature Date

I understand these conditions and agree to abide by these terms and conditions.

Edna Trepanier
Researcher Name (Please print)
[redacted]
Researcher Signature

Expected date of completion: April 30, 2014

Current version 032012

Appendix I

IRB Approval Letter from Participating Hospital**

**(Redacted for Confidentiality)

[redacted]

August 19, 2014

Edna Trepanier, MSN, MBA, RN, CCRN
[redacted]

RE: **EXPEDITED INITIAL REVIEW:** [redacted] The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communications Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating

Dear Ms. Trepanier;

We are in receipt of your request for approval of the above-mentioned study. The protocol, dated August 11, 2014 (Doctorate Thesis), Information sheet (English), dated 8/11/2014, Pre-test and Post-test survey (original documents) were reviewed and approved. This minimal risk study meets the criteria for expedited review as outlined in 45 CFR 46.110(b)(1) or 21 CFR 56.110(b)(1). This study was approved under Category 7.

This study is approved to be conducted within [redacted] The [redacted] Institutional Review Board ([redacted]) grants approval for a waiver of documentation of consent for subjects related to this project. An information sheet will be used to introduce the project, and subjects' completion of the survey will be passive consent to participate. The data collected is coded by the subject and the researcher cannot identify individual responses. No protected health information is collected for this research.

There are no other investigators or key personnel approved for this study.

Effective this date, expedited approval is hereby given for this study. This study is approved for one year and will expire on: **August 19, 2015.** If this study ends early, please contact the IRB office for the appropriate documents to formally close out this study.

As the principal investigator, you are responsible for complying with the following policies:

{1} Conduct the study according to procedures approved by the IRB.
{2} Submit for review and approval by the IRB any changes to the protocol prior to the implementation of the change.
{3} Ensure that only formally-designated investigators or research staff, approved by the IRB, enroll subjects.
{4} Complete a Progress Report at interval designated by the IRB (not less than once a year).
{5} Notify the IRB when the study is completed and prepare a final report.
{6} Notify the IRB promptly of situations when subject confidentiality has not been protected in accordance with the study plan.
{7} Provide adequate training to staff involved in the conduct of your research.

Prior to using [redacted] name in any publication related to this research, the results need to be reviewed administratively by the hospital and approval provided.

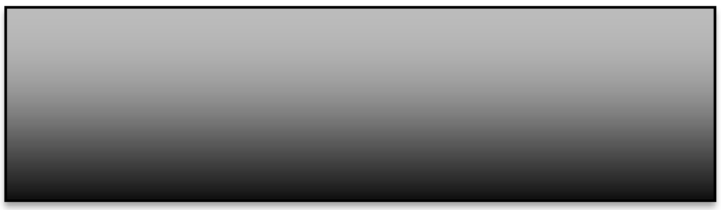
Sincerely,

[redacted]

Appendix J

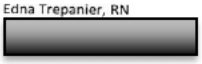
IRB Approval Letter from Participating Hospital**

**(Redacted for Confidentiality)



June 01, 2015

Edna Trepanier, RN



RE: **PROGRESS REPORT:** [redacted] The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Non-verbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating

Dear Ms. Trepanier;

We are in receipt of your progress report for the above-mentioned study. The following was received with your submission:

Study Document			
Title	Version Number	Version Date	Outcome
Information Sheet for Research	Version 1.0	08/11/2014	APPROVED

**Approved/acknowledged documents can be located on the study home page in the electronic IRB system.*

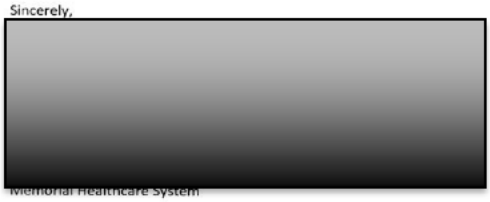
Please use the approved Information Sheet for Research for new subjects enrolled upon receipt of this correspondence.

APPROVAL PERIOD: Effective this date, June 1, 2015, **EXPEDITED, approval** is hereby given for this study. This study is approved for 12 Months; and will expire on June 1, 2016. If this study ends early, please contact the IRB office for the appropriate documents to formally close out this study.

EXPEDITED CATEGORY: This minimal risk study meets the criteria for expedited review as outlined in 45 CFR 46.110(b)(1) or 21 CFR 56.110(b)(1). This study was re-approved under expedited criteria Category 7: Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies .

CONFLICTING IRB MEMBERS: There are no conflicting members.

Sincerely,



Memorial Healthcare System
Institutional Review Board

Appendix K

Data Access and Use Permission

University of Phoenix®

DATA ACCESS AND USE PERMISSION

[redacted]

Name of Facility, Organization, University, Institution, or Association

Please check mark any of the following statements that you approve regarding the study and data described below:

☑ I hereby authorize Edna Trepanier, a student of University of Phoenix who is conducting a research study titled or described as follows: ***The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating***, access to, and use of, the non-identifiable archival data described as follows: **Three total months of HCAHPS scores on nurse communication and its items, the overall hospital rating, and patient demographics will be collected from [redacted] through its HCAHPS vendor, [redacted] prior to educational training and for three months following training program completion** for use in the aforementioned research study. In granting this permission, I understand the following (please check mark each of the following as applicable):

☑ The data will be maintained in a secure and confidential manner.

☑ The data may be used in the publication of results from this study.

☑ This research study must have IRB approval at the University of Phoenix before access to the data identified here is provided to Edna Trepanier.

☑ Access to, and use of, this data will not be transferred to any other person without my/our express written consent.

☑ The source of the data may be identified in the publication of the results of this study.

☑ Relevant information associated with this data will be available to the dissertation chair, dissertation committee, school as may be needed for educational purposes.

[redacted]

Current version 032012

Appendix L

Premises, Recruitment and Name (PRN) Use Permission

University of Phoenix

PREMISES, RECRUITMENT AND NAME (PRN) USE PERMISSION

[redacted]

Name of Facility

Please complete the following by check marking any permissions listed here that you approve, and please provide your signature, title, date, and organizational information below. If you have any questions or concerns about this research study, please contact the University of Phoenix Institutional Review Board via email at IRB@phoenix.edu.

☒ I hereby authorize Edna Trepanier, a student of University of Phoenix, to use the premises (facility identified below) to conduct a study entitled, ***The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating.***

☒ I hereby authorize Edna Trepanier, a student of University of Phoenix, to recruit subjects to participate in a study entitled, ***The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating.***

☐ I hereby authorize Edna Trepanier, a student of University of Phoenix, to use the name of the facility identified above when publishing results from the study entitled, ***The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating.***

[redacted]

8/19/2014

Date

1

Appendix M

Data Access and Use Permission

University of Phoenix

DATA ACCESS AND USE PERMISSION

[redacted]

Name of Facility, Organization, University, Institution, or Association

Please check mark any of the following statements that you approve regarding the study and data described below:

☑ I hereby authorize Edna Trepanier, a student of University of Phoenix who is conducting a research study titled or described as follows: ***The Impact of a Communication Skills Training Program on Nurses' Self-reported Verbal and Nonverbal Communication Skills, Patient Satisfaction with Nurse Communication, and the Overall Hospital Rating***, access to, and use of, the non-identifiable archival data described as follows: **Three total months of HCAHPS scores on nurse communication and its items, the overall hospital rating, and patient demographics will be collected from [redacted] through its HCAHPS survey vendor, [redacted], prior to educational training and for three months following training program completion** for use in the aforementioned research study. In granting this permission, I understand the following (please check mark each of the following as applicable):

☑ The data will be maintained in a secure and confidential manner.

☑ The data may be used in the publication of results from this study.

☑ This research study must have IRB approval at the University of Phoenix before access to the data identified here is provided to Edna Trepanier.

☑ Access to, and use of, this data will not be transferred to any other person without my/our express written consent.

☑ The source of the data may be identified in the publication of the results of this study.

☑ Relevant information associated with this data will be available to the dissertation chair, dissertation committee, school as may be needed for educational purposes.

[redacted]

Current version 032012