Humor as a Teaching Strategy: The Effect on Students' Educational Retention and Attention in a Nursing Baccalaureate Classroom

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HUMOR AS A TEACHING STRATEGY: THE EFFECT ON STUDENTS' EDUCATIONAL RETENTION AND ATTENTION IN A NURSING BACCALAUREATE CLASSROOM

by

MOHAMMED AHMED ALKHATTAB

MASTER'S THESIS

Submitted to the College of Nursing of Valparaiso University
Valparaiso, Indiana
in partial fulfillment of the requirements
For the degree of

MASTER OF SCIENCE IN NURSING

DECEMBER 2012

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DEDICATION

I dedicate this study to my beloved country, Iraq, and my family who have supported me in my educational journey. To my beloved country, Iraq, who always feeds its children. To my mother, who covered me with her love, and who spends night after night praying for my success, and who cries to make me happy, thank you so much. To my father, Ahmed Alkhattab, who burns like a candle to light my way and who believes in me always, thank you so much. To my brothers, Assad and Ehab, who warm me when I get cold, and who have the same blood as flows in my body, thank you. To my sisters, who make me smile when I felt sad, thank you. To my wife, who makes me grow up with her patience, and who will never know how much she means to me, thank you so much. To my son Abdu Allah, thank you because you taught me the meaning of love. I thank you and love you all forever.
ACKNOWLEDGEMENTS

First and foremost, all glory and honor be to Allah for all the many blessing He has bestowed on me. I want to thank the Iraqi government, who elected me to continue my studies in the United States of America. Many thanks to all the members of the Higher Committee for Education Development in Iraq for their guidance and support throughout my master’s program.

My gratitude and appreciation to my professor and advisor, Dr. S. Kim Genovese, who has supported me with her kindness so I could learn and develop my personality and knowledge. Your lavish advice, patience, wisdom, and input throughout my master’s courses and in this research have been priceless and magnificent; I would not have been able to complete this master’s journey without you. Thank you so very much.

I want to thank the Dean of the College of Nursing at Valparaiso University, Dr. Janet M. Brown, for giving me permission to apply for the program and for her support throughout my master’s degree program. I am so thankful for all my professors in the College of Nursing who taught, helped, and encouraged me throughout my master’s degree studies.

A special thanks to Prof. Julie White, who helped me by giving me the opportunity to use her class to implement this study. I am very thankful to all the students who volunteered to be in this study. My special thanks to Mr. Cody Neal for his feedback and support on the statistics of this study. My thanks to all my English teachers for the unlimited encouragement in improving my scholarly English writing. My appreciation to Valparaiso University administration for their support. Finally, I would like to thank all my colleagues and friends who provided me with their support and encouragement to continue my study, especially my friend Ahmed Zuhair.
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Abstract

With the rapid development in nursing education systems, nurse educators struggle to find effective teaching strategies for their students. Using humor as a teaching strategy with nursing students can be helpful in improving many areas of their education. The review of literature showed a lack of studies on the effect of using humor in nursing education. The purpose of this study is to explore the effect of using humor as a teaching strategy on the educational retention and attention of sophomore nursing students. The setting for this study was a college of nursing at a Midwestern university. The participants were sophomore nursing students who were randomly assigned to a group of humorous and non-humorous lectures. The participating students completed prequizzes and postquizzes. Both quizzes had the same six multiple-choice questions and one question on a Likert-type scale that asked the students to rate their level of attention. The participants who experienced the humorous lectures were also asked to complete the Humor Questionnaire (HQ). The data were analyzed using the SPSS 18.0 statistical package. Paired-sample t test was conducted to analyze and compare the prequiz and postquiz scores. The paired-sample t test demonstrated a significant difference in the prequiz and postquiz scores (p < 0.5) of the students in the humorous lecture. Also, there was a statically significant increase in the level of attention among students who participated in the humorous lectures (p < 0.5). Descriptive statistics were used to analyze the Humor Questionnaire. Sophomore nursing students appreciate educators who use humor and wish that there were more use of humor in their nursing classes. The results suggest that using humor in nursing classrooms increases nursing students’ information retention and increases their attention.

*Keywords:* humor in nursing education, teaching strategy
CHAPTER 1

Introduction

Successful teaching strategies in nursing are strategies created by educators who have effective, creative, and innovative communication skills. Many cutting-edge nurse educators have started to apply innovative teaching strategies in academic and clinical settings to advance their learners’ competency levels and to achieve the best learning outcomes. Humor itself is not new, but it is an innovative teaching strategy that can be used to improve different areas of nursing education. Humor is a creative teaching technique that places demands on the skills and art of the educators (Bradshaw & Lowenstein, 2011; Martin, 2007; Ulloth, 2002).

Many civilizations throughout the history of the world have been known for the expression of humor in their workplaces and in social communications. An example is the Sumerian civilization; historical scientists have found many written forms of humorous sentences in Sumerian records and homes dating back more than 3,500 years (Roeckelein, 2002). Over 2,500 years ago, the Egyptians believed that the “world was created by the first Egyptian God through laughter” (Whisonant, 1998, p. 4). The earliest Hellenistic philosophers, Socrates and Plato, were known for their humor in teaching. They were the first to suggest creating amusement and enjoyment by using humor in workplaces (Martin, 2007; Roeckelein, 2002; Ulloth, 2002). The history of humor can go back before the history of the world; it can go back to the time of the creation of human beings. This can be seen with newborn babies; when babies perceive any humorous action, they can generate laughter. Also, humor can be seen in animal behavior, as with the chimpanzees (Martin, 2007). Humor is a universal aspect of human experience that can be translated to different meanings and norms from culture to culture. “In a world of cultural diversity, humor can be the universal language that evokes a positive
experience” (Feagai, 2011, p. 45). Humor is important social-interaction material that can have a playful manner (Martin, 2007). “Fun is one of the five primary needs of humans, alongside survival, belonging, power, and freedom” (Lei, Cohen, & Russler, 2010, p. 327).

Humor is “the quality in something that makes it funny and makes people laugh” (Longman Dictionary of American English, 2008, p. 501). According to Martin (2007), humor is “a broad term that refers to anything that people say or do that is perceived as funny and tends to make others laugh as well as the mental processes that go into both creating and perceiving such an amusing stimulus and the effective response involved in the enjoyment of it” (p. 5). Englert (2010) defined humor as “the mental faculty of discovering, expressing, or appreciating the ludicrous or absurdly incongruous”; this helps explain how “ha-ha can lead to aha” (p. 48). The German psychologist Jean Paul defined humor as “stimulation of a higher level of self-reflective imagination whereby life’s problems can be viewed in a state of relative calmness without being overwhelming” (Feagai, 2011, p. 45). Humor can be a talent involving the ability to make others laugh (Martin, 2007). So, laughter is a cognitive and mental response that expresses the visible side of humor (Stein & Reeder, 2009). In addition, “laughter is the shortest distance between people” (Beck, 1996, p. 346). With a short distance between the educator and the students, the learning environment has the best shape of connections and communications. Humor in nursing education can be used to promote a relaxed learning environment that motivates students to learn and gain information. “Students are more likely to learn if they are happy and amused than if they are feeling anxious and threatened” (Martin, 2007, p. 350). Critical-thinking skills and enthusiastic behavior can achieve the maximum level of psychological and physiological interaction. Humor as a teaching strategy fits with the cognitive, affective, and psychomotor domains of teaching that provide an active learning environment.
According to Roeckelein (2002), humor has “cognitive, emotional, behavioral, social, and psychophysiological aspects” (p. 23). These humor aspects can be very beneficial to the nursing education system. For example, the psychological functions of humor contribute “cognitive and social benefits, social communication and influence, and stress relief and coping” (Martin, 2007, p. 15). The application of humor in nursing lectures has produced several positive outcomes, including cognitive stimulation (Baid & Lambert, 2009), student-instructor connections (Chauvet & Hofmeyer, 2006), communication (Ahern, 2009), forming of trusting relationships (Lei et al., 2010), decreased anxiety (Golchi & Jamali, 2011; Moscaritolo, 2009), and the ability to cope with stress (Englert, 2010; Zhao, Kong, & Wang, 2012). Other positive outcomes include enhancing self-esteem, motivating the student to study (Chiarello, 2010), maintaining creativity (Ulloth, 1998), leading to strategies for leadership and teamwork building (Thomson, 2010), and increasing the student’s development of problem-solving skills (Chauvet & Hofmeyer, 2006).

Today, many nurse educators are beginning to use humor as a teaching strategy because of the positive and effective outcomes for students, educators, and the learning process. Also, there is a big shift in nursing education from teacher-centered learning to student-centered learning. This shift in learning process plays a crucial role in using appropriate teaching strategies in nursing classrooms. An effective teaching strategy is one that supports and maintains students’ participation and creativity. There are numerous advantages of using humor in nursing academic and clinical settings. Active learning, student-centered learning, enjoyment of and amusement in learning are benefits that the students receive when humor is used in nursing education. Humor is a successful tool that enhances course content, increases students’ responsiveness to learning, decreases negative patient behaviors, and supports patients’ behavior
HUMOR AS A TEACHING STRATEGY

in responsive to treatment (Hsieh, Liu, & Chang, 2005). According to Nahas (1998), using humor in clinical settings “raises students’ awareness of humor and its potential healing effects on the clients” (p. 665). Nursing students can learn humor from their educators, which will lead to best nursing care for patients. Humor can be used as a distraction by cognitive means for decreasing patients’ pain (Weisenberg, Tepper, & Schwarzwald, 1995). Using humorous stories while teaching in the clinical-nursing setting can be one of the best communication and trust-building tools; educators can use humor to enhance the positive climate of learning in the nursing classroom (Shibinski & Martin, 2010). Humor can break down the wall of stress between students and educators (Hayden-Miles, 2002; Nahas, 1998). Nurse educators who are spontaneous and make students laugh can maintain students’ attention and increase their participation (Watson, 2011). Humor then becomes a facilitating tool for the learning process by increasing students’ attention and their memory (Beck, 1996). Sharing knowledge and facilitating skills are valuable talents that nurse educators need to advance the learning process.

Humor is a versatile teaching technique that can be applied to various nursing courses. Yet, although humor is versatile, it can vary in effectiveness and outcomes. For the purpose of this study, humor will be defined as professional amusing stories, amusing comments, and jokes that relate to the nursing lecture content and that the nurse educator uses as a teaching strategy to increase nursing students’ educational retention and attention. Humor as a teaching strategy may reflect variance in the stages of acceptance and benefit received. The aim of this study is to explore the effect of using humor as a teaching strategy on the educational retention and attention of sophomore nursing students.
CHAPTER 2

Theoretical Framework and Review of Literature

Theories of Humor

The use of humor in the classroom setting dates back thousands of years. Rabbah, a Talmudic teacher, lived in ancient Babylonia 1,700 years ago. Rabbah used humor at the opening of his lectures, thereby eliciting a pleasant response from his students, which led to a better learning environment (Shibinski & Martin, 2010). Yet more recently, many theories have been used to describe the nature, benefit, and role of humor in a person’s life.

Physiology and psychology are two major fields that examine humor. The physiological theorists have found that humor can provide many benefits for the human body’s health, and the understanding of humor makes use of the entire brain (Whisonant, 1998). The exposure to humorous stimuli can lead to the release of endorphins and reduce muscle tension. This reduction of muscle tension plays an important role in decreasing pain (Weisenberg, et al., 1995). Humor can positively maintain the respiratory system by reducing the effect of bronchial asthma and boost the immune system by increasing the expenditure of energy (Tan & Schneider, 2009; Wilkins & Eisenbranum, 2009).

Psychologists have also expressed through their theories the nature and the benefits of humor. Three important psychological theories have attempted to explain humor: (a) the superiority theory, (b) the incongruity theory, and (c) the relief theory (Martin, 2007; Wilkins & Eisenbranum, 2009). The superiority theory focuses on the social function of humor presented by unifying a group working together by criticizing the opposition by using humor. Plato is the father of the superiority theory, which says, “We laugh at others so that we feel better about ourselves” (Feagai, 2011, p. 45). The British philosopher Thomas Hobbes, who is one of the
most accepting of the superiority theory, explained that humor can result from a “sense of superiority derived from disparagement of another person or of one’s own past blunders or foolishness” (Martin, 2007, p. 44). So, the superiority theory is an aggressive form of humor that takes pleasure in others’ discomfort (McCreddie & Wiggins, 2008).

The incongruity theory describes the cognition role of humor by reappraising a negative situation to a less negative situation by decreasing the threatening perspective (Wilkins & Eisenbranum, 2009). According to Martin (2007), the incongruity theory presents the cognitive process of humor, which provides a crucial understanding of the humor application. The Hungarian-British author and journalist Arthur Koestler was the first to develop the concept of bisociation to describe the cognitive processes that are involved in humor (Martin, 2007). Koestler explained that “bisociation occurs when a situation, event, or idea is simultaneously perceived from the perspective of two self-consistent but normally incompatible or disparate frames of reference” (Martin, 2007, p. 63). A simple example is “a pun, in which two different meanings of a word or phrase are brought together simultaneously (e.g., Why do people become bakers? Because they knead the dough)” (Martin, 2007, p. 63). So, the incongruity theory explains the process of setting up the humorous remark or situation by the cognitive-perception aspect of humor.

The relief theory, or psychoanalytic theory, emphasizes the major role that humor plays in decreasing personal tension. Sigmund Freud explained the relief of stress approach by providing a picture of humor as a defense mechanism that will “enable us to protect ourselves from the painful emotions associated with adverse circumstances” (Martin, 2007, p. 49).
Freud viewed humor as one of the healthiest psychological defense mechanisms, distinct from joking. He defined the latter as being unacceptable, showing aggressiveness and sexual impulsiveness. In addition, Freud expressed the belief that humor allows detachment in the face of adversity and misfortune (Stein & Reeder, 2009, p. 266).

The psychologists Allport, Maslow, Vailant, and Cohen also agreed with Freud’s explanation of the “healthy form of humor as adaptive and a component of positive psychology” (Stein & Reeder, 2009, p. 266; Watson, 2011). Relief theory explains how people experience humor and its role in reducing stress and anxiety (Wilkins & Eisenbranum, 2009).

One important modern theory is the reversal theory, which states that humor is a playful manner (Martin, 2007). The Anglo-American psychologist Michael Apter developed a theory of humor that he derived from the reversal theory. According to Martin (2007), Apter’s theory of humor seems one of the strongest theories of humor because of the promising framework and the comprehensive view of humor that his theory provides. Apter explains that the experience of humor as a “playful state of mind,” and this playful frame is goal directed. We reverse our thoughts back and forth in our minds between the two states of seriousness and play in everyday living (Martin 2007, p. 76). Another important concept that Apter’s theory addresses is the cognitive aspect of humor, which is very similar to the description of incongruity theory (Martin 2007). According to Boyd (2004), humor is related to play theory, which provides creative, mutual trust; active participation; and an environment characterized by enjoyment. “Cognitive and effective theories appear to be the most important for education as they account for linguistic, intellectual, and emotional aspects of learning” (Bradshaw & Lowenstein, 2011, p. 99).
In nursing, many theorists support using humor in practice. Florence Nightingale documented the importance of laughter in nursing care, and Vera Robinson explained the use of humor in nursing practice (Stein & Reeder, 2009). Martha Rogers, in her theory of the unitary human being, maintained that the use of humor was one of the noninvasive modalities of nursing. Jean Watson developed the transpersonal caring theory, which emphasized giving love and care as the first line of healing. According to Stein and Reeder (2009), “laughter can be an important ingredient for self-care and healing” (p. 268). Researchers have also been conducting studies to understand more about “positive psychology,” which focuses on coping by using optimism, courage, faith, and humor in different life situations (Hsieh et al., 2005, p. 207). Recently, many studies have shown the positive results of using humor with different patient populations to improve their psychological, cardiovascular, and immune functioning (Lebowitze, Suh, Diaz, & Emery, 2011).

**Types of Humor**

Humor has three formats: wit, mirth, and smiling. According to Bradshaw and Lowenstein (2011), “Wit is the cognitive process that elicits humor; mirth is the emotional reaction to humor, joy, and pleasure; laughter or smiling is a physical expression of humor” (p. 98). Humor is present in our everyday living in many different forms, like jokes, conversational humor, and unintentional humor. Many conversations between lovers, friends, coworkers, doctors and clients, and professors and students can include jokes that we have experienced in an amusing environment that help to increase the interaction and communication between people (Martin, 2007). People use intentional humor, or conversational humor, to create an amusing environment of interaction. Conversational humor can be classified into anecdotes (relating an
amusing story about oneself or someone else); wordplay (creating puns, witty responses, or wisecracks that play on the meaning of words); and irony (a statement in which the literal meaning is different from the intended meaning) (Martin, 2007, p. 12). Unintentional or accidental humor is humor that results in a surprise. It can be physical or linguistic; for example, spilling orange juice on one’s pants or finding misspellings in the headline of a professor’s handout (Martin, 2007).

Another classification of humor is appropriate (positive) and inappropriate (negative or offensive) types of humor (Hsieh et al., 2005). Inappropriate humor is explained as one’s presenting oneself as superior to another person or group, which can be hurtful and offensive (Hsieh et al., 2005), for example, using humor in the class negatively so as to offend the students because of their work or behavior. Appropriate humor is categorized into four types: “topic-related humor, humor unrelated to a topic, self-disparaging humor, and unplanned humor” (Englert, 2010, p. 48). These four types are considered effective teaching tools for nurse educators. Furthermore, appropriate humor can take different forms with any teaching strategy, for example, “quotations, cartoons, multiple-choice items, top 10 lists, anecdotes, skits and dramatizations, ad-libs that are not actually ad-libs,” and storytelling (Ulloth, 2003, p. 126). “The most positive forms of humor are funny stories or comments, jokes, and professional humor” (Bradshaw & Lowenstein, 2011, pp. 97–98). Nurse educators play an essential role by using these forms of humor to engage their students and increase the atmosphere of positive activity in the classroom.
The individual cognitive elements appear to characterize all forms of humor. Martin (2007) explained that to produce and receive all forms of humor, the individual needs to “mentally process information coming from the environment” (p. 6). The theory that provided the theoretical framework for this study is cognitive learning. This involves being mentally active with information, which encourages memory and retention (Bastable, 2008). Cognitive learning theory is appropriate for this study because it emphasizes the importance of the individual mental process for learning. It also explains the learner’s reaction to and interaction with the learning environments by perceiving the mental triggers that stimulate and motivate learning (Candela, 2012). Humor can work as a mediator or trigger to the learner’s cognitive process of learning.

According to Merriam-Webster’s Online Dictionary (2012), cognition is defined as a “cognitive mental process,” and cognitive is defined as “relating to conscious intellectual activity as thinking, reasoning, remembering, imagining, or learning words.” Cognitive learning theory is defined as a theory that focuses on cognitive processes like decision making, problem solving, synthesizing, and evaluating (Saylor, 2011).

Cognitive learning theory explains learning as “an active, cumulative, constructive process that is goal oriented and dependent on the learner’s mental activities” (Candela, 2012, p. 209). In cognitive learning theory, students are active rather than passive participants in the learning process. Students need to “discover the meaning by using information processing strategies, memories, and attention and motivational mechanisms to organize and understand it” (Candela, 2012, p. 209). Cognitive learning theorists “stress the importance of what goes on
inside the learner” (Bastable, 2008, p. 50). Cognitivists emphasize that the individual needs to change his or her cognition to learn. Bastable (2008) explains cognition change as “a highly active process largely directed by the individual; learning involves perceiving the information, interpreting it based on what is already known, and then reorganizing the information into new insights or understanding” (p. 50). According to Martin (2007), humor involves ideas and images that can cause amusement; these ideas and images stimulate attention, memorization, and thinking.

Nurse educators’ role in cognitive learning theory is to guide, facilitate, and stimulate the learner by providing motivation in the learning environment and sharing experiences. Humor can improve the classroom environment by increasing the enjoyment in learning and motivating the student to think (Martin, 2007). The benefit of enhancing student-teacher relationships that humor provides can also facilitate learning and stimulate the mental process of learning.

Cognitive learning theory includes several well-known perspectives, such as “Gestalt, information processing, human development, social constructivism, and social cognition theory” (Bastable, 2008, p. 50). The key to learning from these perspectives lies in cognition elements like perceptions, memory, thinking, organization, and information processing. Cognitive learning theory helps educators and students to manifest their potential. These principles of cognitive learning theory provide positive learning connections between the educators, students, and classroom environments. Humor can be employed by educators as a medium to stimulate and motivate the learner’s mind. Whisonant (1998) says humor is multidimensional in nature and a “three-step process that begins with arousal, is followed by problem solving, and ends with resolution” (p. 2).
Cognitivist teaching allows one to experience a particular point of thinking and memorizing, which can be humorous. These experiences may become powerful opportunities for learners to learn. Using humor in different classroom settings has shown that highly effective communication and connection tools can exist between the educators and students (Ahern, 2009; Baid & Lambert, 2009). Nurse educators need to use teaching strategies that maximize students’ learning processes. Humor can be one of these successful learning strategies that the educator uses in the classroom environment to increase students’ academic performance, which is evident when they participate, communicate, interact, pay attention, and memorize.

**Studies on Using Humor in Nursing and Education Classes**

Studies about the use of humor and its effects and benefits were found through the nursing and medical search engines of the websites Cumulative Index to Nursing and Allied Health (CINAHL), PROquest Nursing & Allied Health, MEDLINE (via EBSCOhost Interface), American Psychological Association (PsychInfo), JBIConnect, and through the search engine Educational Resource Information Center (ERIC). The articles retrieved did not show a clear rationale for the effect of using humor in the nursing classroom. However, with the significant movement toward advancing the field of nursing, studies have been conducted to describe, discover, explain, and examine the effect of using humor in different nursing academic and clinical settings. The keywords that directed the searching process were *humor in nursing education* and *teaching strategy*.

Nadler and Clark (2010) found that using humor in PowerPoint template slides in the psychological classroom setting increased the students’ familiarity with the faculty and served to integrate students into the psychology department. In Nadler and Clark’s qualitative study, a
convenience sample of 153 undergraduate psychology students from a Midwestern university participated. The researchers divided the students into four groups for the pre-class slides. They used a questionnaire with a five-point Likert-type scale to collect the data from the participants. The data were analyzed using the \( t \) test. The results of this study showed that the students’ integration with the psychology class and department increased with the use of humor.

In a qualitative Australian study, an open-ended and semi-structured experiential questionnaire was used to interview a sample of 48 Australian nursing students enrolled in bachelor of nursing courses at the University of Sydney Metropolitan. The purpose was to explain the nursing students’ lived experiences of humor presented by their clinical teachers within the context of clinical education (Nahas, 1998). The students were between 19 and 24 years of age, 36 had Anglo-Celtic backgrounds, 12 were Asian, and the gender mix was 15 males and 33 females. The study used Colaizzi’s phenomenological methodology and ethnographic software. The findings indicated that clinical nursing teachers’ use of humor helped nursing students cope with the anxiety-producing situations that they encountered during their clinical learning, and the majority of nursing students preferred the clinical teachers who used humor in the clinical setting (Nahas, 1998).

Ulloth (2002) designed a qualitative and quantitative case study that examined the benefits of using humor in the nursing classroom for both nurse educators and students. A sample was collected from undergraduate nursing schools in a three-state area from 1997 to 1998. To be eligible, a school had to have at least 10 nursing students in every class, and the teacher had to be humorous and available during the study period. Three schools of nursing participated; schools of nursing in Illinois, Ohio, and Indiana. The participants were recent
graduates and senior-level students. The study used questionnaires, observations, and interviews, and the data were analyzed by cross-case analysis. The researcher discovered that the use of humor bestowed five benefits on both nurse educators and students. It could (a) relieve stress and anxiety, (b) help students focus their attention, (c) make learning fun, (d) aid learning, and (e) strengthen social relationships.

Stein and Reeder (2009) suggested that using the experience of laughing at oneself in the nursing profession would provide nursing students with tools that they could use when facing challenges in their future nursing careers. The population of the study was a sample of nine baccalaureate female students from the Health Science Center, University of Colorado, Denver. The students were between 23 and 51 years old. In this qualitative study, the researcher used face-to-face interviews and recorded the interviews to collect the data. The data were analyzed using Husserl’s phenomenological methodology and the detailed approach of a four-column analysis grid. The researcher found that humor could help the nursing students deal with the challenges that they would face during their studies and careers.

Torok, McMorris, and Lin (2004) conducted a qualitative study to examine how students perceived professors’ uses of various types of humor during class and the types of humor that students and faculty recommended for use in class. The study population was a sample of 124 students from three different disciplines (biology, educational psychology, and theater). The researcher used a survey consisting of Likert scales, rating scales, modified checklists, and open-ended questions to collect the data. The researcher used intercorrelations, means, and standard deviations for ranked competences to analyze the data. The study results showed that the
students appreciated the use of appropriate humor, and they recommended using funny stories, funny comments, jokes, and professional humor.

Humor can be used by nursing students after their graduation in different clinical settings as a communication tool with their patients. In a qualitative study, Beck (1996) described the meaning of nurses’ use of humor in their nursing practices. The study showed different benefits of using humor by nurses in clinical practice. For example, using humor can help nurses to create effective therapeutic communication with their patients and decrease patients’ anxiety and embarrassment.

An international qualitative exploration study led by Hsieh et al. (2005) examined the use of the new Chinese Humor Scale (CHS) by nurse educators and clinicians to further test and assess concepts related to humor. The study population was a sample of 405 female nurses who were between 17 and 55 years of age; included in this group were students from a medical university engaged in on-the-job training and professional nurses practicing at four hospitals in North Taiwan. The researcher used the construct-based scale approach to measure humor and the Perceived Stress Scale (PSS) to test the Chinese Humor Scale’s (CHS) discriminability validity. The researcher also analyzed 405 questionnaires by using statistical software package SPSS 10.0 for Windows. The findings from this study provide evidence for the construct validity and reliability of the Chinese Humor Scale (CHS) and its appropriateness for use by nurse educators and clinicians.

Many professors of humanities and science have used humor in their classes. In an introduction to statistics and in a psychology course, Ziv (1988) conducted a quantitative study to examine the effect of using humor on students’ performance on exams. The population was a
sample of 161 students who enrolled in statistics and psychology courses. The students were divided into two groups. One group experienced the humor, and with the other group no humor was used. The researcher used the final exam scores as a tool to collect the study data. The data were analyzed using ANOVA. The results showed that students who experienced humor in their courses had higher scores on the final exam (Ziv, 1988).

These earlier studies showed strong evidence of the positive effects of using humor in different areas of nursing and other educational settings. Humor seems to be a successful communications and interaction tool for educators. Ziv’s (1988) study was the earliest study to use the final exam scores to measure the students’ ability to memorize the class material after experiencing humor in the lectures, and the study showed significant evidence of student success. The study by Torok et al. (2004) provided an analysis of appropriate forms of humor for nurse educators to use in the classroom. Table 2.1 summarizes the studies above and ranks them according to hierarchy of evidence rating system by Polit and Beck (2012).
**HUMOR AS A TEACHING STRATEGY**

Table 2.1

*Level of Evidence from the Appraisal of Literature*

<table>
<thead>
<tr>
<th>Reference</th>
<th>Purpose</th>
<th>Sample</th>
<th>Design</th>
<th>Measurements</th>
<th>Results/Findings</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck (1996)</td>
<td>Describe the meaning of nurses’ use of humor in their nursing practice</td>
<td>Convenience sample of 21 registered nurses who enrolled in a graduate nursing program at University of Connecticut</td>
<td>Qualitative</td>
<td>21 written descriptions</td>
<td>Five positive themes of using humor by nurses in clinical practice were found.</td>
<td>II</td>
</tr>
<tr>
<td>Hsieh et al.(2005)</td>
<td>“Chinese Humor Scale (CHS)” for the nursing profession and then test its reliability and validity</td>
<td>Convenience sample of 405 female nurses between 17 and 55 years of age. The nurses were on-the-job students from a medical university in North Taiwan and professional nurses practicing at four hospitals in North Taiwan</td>
<td>Quantitative</td>
<td>Questionnaire</td>
<td>The CHS had validity and reliability, and it could be used by nurse educators and clinicians.</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cronbach’s alpha coefficients</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Construct-based scale</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Perceived Stress Scale (PSS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Statistical software SPSS 10.0 for windows</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2.1 continued

<table>
<thead>
<tr>
<th>Reference</th>
<th>Purpose</th>
<th>Sample</th>
<th>Design</th>
<th>Measurements</th>
<th>Results/Findings</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nadler &amp; Clark (2010)</td>
<td>Using humor to increase the students interest in class and knowledge of the department and its faculty</td>
<td>Convenience sample of 153 undergraduate psychology students from a Midwestern university</td>
<td>Quantitative</td>
<td>Questionnaires</td>
<td>Using humor in PowerPoint template slides in the psychological classroom setting will increase the students’ familiarity with the faculty, and that will increase the integration of students into the rest of the psychology department</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Four groups:</td>
<td>Likert-type scale and Five-point scale t-test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>First group-pretest/posttest design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Second group-posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Third group-nonequivalent posttest</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Fourth group-pretest/posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nahas (1998)</td>
<td>Discover, describe, and explain nursing students’ lived experiences of humor as utilized by their clinical teachers within the context of clinical education</td>
<td>Purposeful sample of 48 Australian nursing students enrolled in bachelor of nursing courses at the University of Sydney Metropolitan. The students were between 19 and 24 years of age.</td>
<td>Qualitative, descriptive</td>
<td>Open-ended interviews</td>
<td>The use of humor by clinical nursing teachers helped the nursing students cope with the anxiety-producing situations that they encountered during their clinical learning, and the majority of nursing students preferred the clinical teachers who used humor in the clinical setting.</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Colaizzi’s phenomenological method (1978)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Ethnograph software</td>
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### Table 2.1 continued

<table>
<thead>
<tr>
<th>Reference</th>
<th>Purpose</th>
<th>Sample</th>
<th>Design</th>
<th>Measurements</th>
<th>Results/Findings</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stein &amp; Reeder</td>
<td>Discover the meaning of the experience of laughing at oneself for beginning nursing students</td>
<td>Convenience sample of nine female BSN students from the University of Colorado, Denver, Health Sciences Center. The students’ ages were between 23 and 51 years old</td>
<td>Qualitative</td>
<td>Face-to-face interview</td>
<td>Using the experience of laughing at oneself in the nursing profession provided the nursing students with tools that they could use successfully with the challenges that they would face in their nursing careers</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Detailed approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Four-column analysis grid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torok et al.</td>
<td>Examine how students perceived professors’ uses of various type of humor during class and the types of humor that students and faculty recommended for use in class</td>
<td>A sample of 124 students from three different disciplines: biology, educational psychology, and theater</td>
<td>Qualitative</td>
<td>Likert scales</td>
<td>The students appreciated the appropriate use of humor and recommended the use of funny stories, funny comments, jokes, and professional humor.</td>
<td>II</td>
</tr>
<tr>
<td>(2004)</td>
<td></td>
<td></td>
<td></td>
<td>Rating scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Modified checklists</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Open-ended questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Intercorrelations, means, and standard deviations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Purpose</td>
<td>Sample</td>
<td>Design</td>
<td>Measurements</td>
<td>Results/Findings</td>
<td>Level of evidence</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Ulloth (2002)</td>
<td>Examine the benefits for both nurse educators and students of using humor in the nursing classroom</td>
<td>A sample collected from three undergraduate nursing schools in a three-state area (Illinois, Ohio, and Indiana) during 1997 to 1998. The schools had to have at least 10 nursing students in every class; the teacher had to be humorous and available during the study period.</td>
<td>Mixed method case study</td>
<td>Questionnaire, observations, interviews</td>
<td>Using humor can provide five benefits for nurse educators and students: 1. Relieve stress and anxiety 2. Focus attention 3. Make learning fun 4. Aid learning 5. Strengthen social relationships</td>
<td>II</td>
</tr>
<tr>
<td>Ziv (1988)</td>
<td>Examine the effect of using humor on students’ exam performance</td>
<td>A sample of 161 students who were enrolled in statistics and psychology courses</td>
<td>Quantitative</td>
<td>Final exam scores</td>
<td>Students who experienced humor in their courses had higher scores on the final exam.</td>
<td>II</td>
</tr>
</tbody>
</table>
CHAPTER 3

Study Design and Methodology

Sample and Setting

A private, religious Midwestern university was the setting for this study. This university has more than 70 majors offered in five undergraduate colleges. It also offers over 40 master’s and two doctorate degrees in its graduate school; 17 international programs in Europe, Asia, Africa, and South America with internships. Students of different ethnic backgrounds from over 50 countries in the world were enrolled in these programs. The College of Nursing has undergraduate and graduate programs in nursing, including doctorate programs.

The subjects for this study were a convenience sample of sophomore nursing students who were enrolled in NUR 201, Professional Role of Nursing, Fall 2012. A total of 111 sophomore nursing students were enrolled in NUR 201; of these, 51 agreed to participate.

Participants

To be eligible to participate, students had to be sophomore nursing students, enrolled in NUR 201 in Fall 2012, and 18 years old or older. A prequiz was given to the 51 participants (46% of the 111 sophomore nursing students). All the participating students ($N = 51$) answered the questions on the prequiz. After three weeks, the 51 participants were randomized into an experiment group ($n = 26$) and a control group ($n = 25$). Five students did not show up for the assigned lectures. Three of these students were from the experimental group and did not show up at all. Two from the control group showed up in the wrong section of the control group lecture. The data for these five were included in the participants’ demographic analysis, but their prequiz data were eliminated as they did not take the postquiz. There were 46 students that participated and were included in the statistical analysis, 23 from each group.
Characteristics

All participants (100%) were sophomore nursing students \( (N = 51) \), with 84.3\% \( (n = 43) \) females students and 15.7\% \( (n = 8) \) male students. The participants’ ages were between 19 and 50, with a mean age of 23.22 years \( (SD = 6.727) \); see Figure 3.1. The majority of the students, 72.5\% \( (n = 37) \), indicated that their ethnic background was American White; 13.7\% \( (n = 7) \) were African American; 9.8\% \( (n = 5) \) were Hispanic; and 3.9\% \( (n = 2) \) were from other ethnic backgrounds. The participants recorded their employment as 64.7\% \( (n = 33) \) students without work, 35.3\% \( (n = 18) \) students with jobs in addition to their studies. In addition to demographic information, students were asked how many credits they were currently registered for. The numbers of credits reported were between 3 and 18, with a mean number of 13.88 credits \( (SD = 2.718) \). The participants were also asked about their assessments of their levels of scholastic ability; 43.1\% \( (n = 22) \) reported average; 52.9\% \( (n = 27) \) above average; and 3.9\% \( (n = 2) \) excellent. Finally, they, were asked if they had experienced humor in nursing classes, 49.0\% \( (n = 25) \) had experienced humor in class, 51\% \( (n = 26) \) had had no experience with humor in class. The demographic characteristics and academic characteristics of the sample are summarized in Table 3.1 and Table 3.2.
Figure 3.1 Age of Participants (N = 51)

Range: 19–50        Mean: 23.22        Std. Deviation: 6.727
Table 3.1

Demographic Characteristics of Sample ($N = 51$)

<table>
<thead>
<tr>
<th>Trait</th>
<th>Percentage ($n$) Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.7% (8) Males</td>
</tr>
<tr>
<td></td>
<td>84.3% (43) Females</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72.5% (37) White</td>
</tr>
<tr>
<td></td>
<td>13.7% (7) African American</td>
</tr>
<tr>
<td></td>
<td>9.8% (5) Hispanic</td>
</tr>
<tr>
<td></td>
<td>3.9% (2) Other</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>64.7% (33) Students without jobs</td>
</tr>
<tr>
<td></td>
<td>35.3% (18) Students with jobs</td>
</tr>
<tr>
<td>Nursing academic level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100% (51) Sophomore students</td>
</tr>
</tbody>
</table>
Table 3.2

*Academic Characteristics of Sample (N = 51)*

<table>
<thead>
<tr>
<th>Trait</th>
<th>Frequency (n)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of credits</td>
<td>2.0% (1)</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>3.9% (2)</td>
<td>9 credits</td>
</tr>
<tr>
<td></td>
<td>31.45 (16)</td>
<td>12 credits</td>
</tr>
<tr>
<td></td>
<td>9.8% (5)</td>
<td>13 credits</td>
</tr>
<tr>
<td></td>
<td>2.0% (1)</td>
<td>14 credits</td>
</tr>
<tr>
<td></td>
<td>19.6% (10)</td>
<td>15 credits</td>
</tr>
<tr>
<td></td>
<td>17.6% (9)</td>
<td>16 credits</td>
</tr>
<tr>
<td></td>
<td>7.8% (4)</td>
<td>17 credits</td>
</tr>
<tr>
<td></td>
<td>5.9% (3)</td>
<td>18 credits</td>
</tr>
<tr>
<td>Students’ self-report of scholastic ability</td>
<td>43.1% (22)</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>52.9% (27)</td>
<td>Above average</td>
</tr>
<tr>
<td></td>
<td>3.9% (2)</td>
<td>Excellent</td>
</tr>
<tr>
<td>Students’ humor experience in nursing classes</td>
<td>49.0% (25)</td>
<td>Had experience</td>
</tr>
<tr>
<td></td>
<td>51.0% (26)</td>
<td>Had no experience</td>
</tr>
</tbody>
</table>
Design

A detailed project plan was submitted to the faculty member assigned to teach NUR 201 during the fall semester, 2012. The researcher chose the NUR 201 course because of the availability of the class, the Dean of the College of Nursing’s suggestion to use that course, the Institutional Review Board’s (IRB) approval, and the timeframe for the study. The researcher provided an explanation of the purpose of the study to the NUR 201 faculty and asked for voluntary participation, indicated by a signed consent form (Appendix A). The faculty informed the students of the study and recruited those who were interested. The faculty provided a complete explanation of the purpose of the study, and interested students signed a consent form (Appendix B). Students were informed in their class and then by e-mail about the time and location of the study. All the NUR 201 class students were given a demographic survey (Appendix C).

The researcher worked with the faculty member to set a plan for humorous and non-humorous lectures. The lecture content selected was the Theoretical Foundations of Nursing Practice. The researcher designed two PowerPoint templates for the lectures. The PowerPoint for the first lecture had humorous stories, comments, and anecdotes related to the lecture content (Appendix D). This humorous lecture was designed to make the participants experience humor in conjunction with the assigned reading. Professional humor was used by changing some of the assigned readings from the textbook to funny PowerPoint illustrations. The second (control group) lecture was a PowerPoint template that the class faculty had designed for the class on the same material (Appendix E).
All student participants took a prequiz three weeks before the scheduled intervention. The prequiz consisted of six questions. Questions 1, 2, 3, 4, and 5 were multiple choice questions related to the lecture content. Question 6 was a Likert-type question that asked the students to determine their attention level during nursing lectures (Appendix F).

After three weeks the participants were divided into two groups. One group of student participants attended the lecture with humorous materials, and the other group attended the lecture without humor. The two groups attended the lectures during the same time frame. The researcher presented the humorous lecture, and another instructor, who chose to be part of the study, presented the lecture without humor. After the lectures, both groups of students took the postquiz (Appendix G). The postquiz contained the same questions as the prequiz. After the postquiz, the experimental group \((n = 23)\) was asked to take the Humor Questionnaire (HQ); see Appendix H. The questionnaire had been developed to allow nursing students to rank selected benefits from classroom humor, to measure the students’ appreciation of using humor, to identify the effect of using humor in the learning process, and to select teachers who used the most humor in nursing classes (Ulloth, 1998). The questionnaire contained five Likert-type questions, an open-ended question, and a short-answer question (Appendix I). In this study, only the five Likert-type questions about using humor in the nursing classrooms were used. The participants in the experimental group were asked to indicate their responses on the scale as strongly agree, agree, neutral, disagree, and strongly disagree. A copy of the permission for use of the HQ is found in Appendix J.

The SPSS 18 statistical program was used to analyze the study data. Descriptive statistics were used to analyze participants’ demographics and HQ answers. A paired sample \(t\)-test was
used to determine if any significant change in information retention or attention occurred among the participants in either the experimental or control conditions.

**Protection of Human Subjects**

The implementation of the study intervention began after obtaining approval from the Institutional Review Board (Appendix K). The Dean of the College of Nursing approved the study design prior to its being submitted to the IRB for approval. A signed consent form from the faculty member who taught NUR 201 was obtained as well as consent forms from all of the participants. The consent forms for students and faculty explained that they had the right to withdraw from the study at any time. Participating students were informed that the quizzes would not affect their grades, nor would participate in the study or withdrawing from it affect their grades. The participating students received e-mails with contact information (office cell phone numbers and e-mail addresses) of both the researcher and the faculty advisor for this study in case of questions or problems.

Each student was assigned a numerical code, which was used to identify the study demographic forms, prequiz forms, postquiz forms, and Humor Questionnaire forms. The students’ names did not appear on any of these materials, and the researcher had no access to the list of students’ names. All the data from the study were kept in a secure, locked cabinet. These methods were used to protect the subjects’ confidentiality.
CHAPTER 4

Results

The purpose of this study was to measure the effect of using humor as a teaching strategy on the attention and information retention of sophomore nursing students. The intervention helped to answer the study question. In this chapter, the findings from the intervention will be discussed.

The experimental group prequiz and postquiz scores showed a significant difference in information retention on question 1 \( (t_{22} = 5.850, p < .05) \), question 2 \( (t_{22} = 4.114, p < .05) \), question 4 \( (t_{22} = 5.850, p < .05) \), and question 5 \( (t_{22} = 10.223, p < .05) \). Question 3 approached significance \( (t_{22} = 1.738, p = .096) \); see Table 4.1. A statically significant increase in students’ attention level occurred after the students attended the lecture with humorous material, which question 6 \( (t_{22} = -11.442, p < .05) \) addressed (see Table 4.2 and Figures 4.1 and 4.2).

The control group prequiz and postquiz scores showed no significant differences in information retention on question 1 \( (t_{22} = -0.699, p > .05) \), question 2 \( (t_{22} = 0.569, p > .05) \), question 3 \( (t_{22} = -1.000, p > .05) \), and question 5 \( (t_{22} = 0.810, p > .05) \). Question 4 scores showed a significant difference in information retention \( (t_{22} = 2.865, p < .05) \); see Table 4.3. There was no statistical significance in students’ attention level after they attended the lecture without the humorous material, which question 6 addressed \( (t_{22} = -0.848, p > .05) \); see Table 4.4.
Table 4.1

*Paired Sample Test Showing Significance Between Prequiz and Postquiz Scores According to Question*

<table>
<thead>
<tr>
<th>Prequiz/Postquiz questions</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequiz &amp; postquiz /Question 1</td>
<td>.609</td>
<td>.499</td>
<td>.104</td>
<td>5.850</td>
<td>22</td>
<td>.000</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz /Question 2</td>
<td>.435</td>
<td>.507</td>
<td>.106</td>
<td>4.114</td>
<td>22</td>
<td>.000</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz /Question 3</td>
<td>.217</td>
<td>.600</td>
<td>.125</td>
<td>1.738</td>
<td>22</td>
<td>.096</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz /Question 4</td>
<td>.609</td>
<td>.499</td>
<td>.104</td>
<td>5.850</td>
<td>22</td>
<td>.000</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz /Question 5</td>
<td>.826</td>
<td>.388</td>
<td>.081</td>
<td>10.223</td>
<td>22</td>
<td>.000</td>
</tr>
</tbody>
</table>
## Paired Sample Test Showing Significance Between Prequiz and Postquiz level of Attention Question Scores

<table>
<thead>
<tr>
<th>Pre / Post-level of attention question</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequiz &amp; postquiz /Question 6</td>
<td>-2.478</td>
<td>1.039</td>
<td>.217</td>
<td>-11.442</td>
<td>22</td>
<td>.000</td>
</tr>
</tbody>
</table>
Figure 4.1 Experimental Group Level of Attention Before the Humorous Lecture

Figure 4.2 Experimental Group Level of Attention After the Humorous Lecture
Table 4.3

*Paired Sample Test Showing No Significance Between Prequiz and Postquiz Scores*

<table>
<thead>
<tr>
<th>Pre/Post Quiz Questions</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequiz &amp; postquiz/Question 1</td>
<td>−0.087</td>
<td>0.596</td>
<td>0.124</td>
<td>−0.699</td>
<td>22</td>
<td>0.492</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz/Question 2</td>
<td>0.087</td>
<td>0.733</td>
<td>0.153</td>
<td>0.569</td>
<td>22</td>
<td>0.575</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz/Question 3</td>
<td>−0.130</td>
<td>0.626</td>
<td>0.130</td>
<td>−1.000</td>
<td>22</td>
<td>0.328</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz/Question 4</td>
<td>0.435</td>
<td>0.499</td>
<td>0.152</td>
<td>2.865</td>
<td>22</td>
<td>0.009</td>
</tr>
<tr>
<td>Prequiz &amp; postquiz/Question 5</td>
<td>0.087</td>
<td>0.515</td>
<td>0.107</td>
<td>0.810</td>
<td>22</td>
<td>0.426</td>
</tr>
</tbody>
</table>
Table 4.4

*Paired Sample Test Showing No Significance Between Prequiz and Postquiz level of Attention Question Scores*

<table>
<thead>
<tr>
<th>Pre/Post-level of attention question</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequiz &amp; postquiz /Question 6</td>
<td>-.348</td>
<td>1.968</td>
<td>.410</td>
<td>-.848</td>
<td>22</td>
<td>.406</td>
</tr>
</tbody>
</table>
The findings of the Humor Questionnaire can be found in Table 4.5. A total of 73.9% \((n = 17)\) responded “strongly agree” to the appreciation of teachers who use humor in nursing classroom teaching. Of the remaining students, 17.4% \((n = 4)\) responded “agree,” and 8.7% \((n = 2)\) responded “neutral.” When the students were asked if the humor interfered with their learning, 8.7% \((n = 2)\) strongly agreed, 8.7% \((n = 2)\) agreed, 17.4% \((n = 4)\) were neutral, 30.4% \((n = 7)\) disagreed, and 34.8% \((n = 8)\) strongly disagreed. The third statement asked the students if the humor made them feel relaxed in the classroom; 43.5% \((n = 10)\) strongly agreed, 52.2% \((n = 12)\) agreed, and 4.3% \((n = 1)\) were neutral. Regarding the fourth statement, “I feel more comfortable with the teachers who use humor in the nursing classroom,” 47.8% \((n = 11)\) strongly agreed, 47.8% \((n = 11)\) agreed, and 4.3% \((n = 1)\) were neutral. The last statement asked the students if they wished fewer teachers used humor in nursing classrooms, and 4.3% \((n = 1)\) strongly agreed, 4.3% \((n = 1)\) were neutral, 65.2% \((n = 15)\) disagreed, and 26.1% \((n = 6)\) strongly disagreed.
Table 4.5

*Humor Questionnaire Results*

<table>
<thead>
<tr>
<th>Humor Questionnaire item</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I appreciate my teachers’ use of humor in the nursing classroom.</td>
<td>73.9 (17)</td>
<td>17 (4)</td>
<td>8.7 (2)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Humor interferes with my learning.</td>
<td>8.7 (2)</td>
<td>8.7 (2)</td>
<td>17.4 (4)</td>
<td>30.4 (7)</td>
<td>34.8 (8)</td>
</tr>
<tr>
<td>Humor makes me more relaxed in my nursing classes.</td>
<td>43.5 (10)</td>
<td>52.2 (12)</td>
<td>4.3 (1)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I feel more comfortable with the teachers who use humor in the nursing classroom.</td>
<td>47.8 (11)</td>
<td>47.8 (11)</td>
<td>4.3 (1)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I wish fewer teachers would use humor</td>
<td>4.3 (1)</td>
<td>0</td>
<td>4.3 (1)</td>
<td>65.2 (15)</td>
<td>26.1 (6)</td>
</tr>
</tbody>
</table>
CHAPTER 5

Discussion

The purpose of this study was to examine the effect of using humor as a teaching strategy on the information retention and attention of sophomore nursing students. This chapter discusses the findings from using humor in the sophomore nursing students' classroom, strengths and limitations of the study, and recommendations for nursing education and research.

Explanation of Results

The scores of the prequiz and postquiz for the group who experienced the humorous lecture were significant and showed improved information retention, with $p < .05$. Also, they showed improvement in their level of attention, with $p < .05$. These results may be presented as an appropriate teaching strategy for nursing education. The review of the literature supported the results of this research. Using humor increased the students' memorization of class material, improved their final exam scores, aided them in the learning process, increased their integration with their teachers, and increased cognitive stimulation (Baid & Lambert, 2009; Nadler & Clark 2010; Ulloth, 2002; Ziv, 1988). The scores of the prequiz and postquiz for the group of participants ($n = 23$) who experienced the lecture without humor showed no improvement in information retention or in attention. The results from the lectures showed no statistically significant difference $p > .05$.

The majority of the participants responded positively to the use of humor in the nursing classroom. Their responses to the Likert statement indicated that they liked and appreciated faculty members' using humor in the nursing classroom; humor in the classroom helped them learn, they were more relaxed by using humor in the classroom, they felt comfortable with a
teacher who used humor, and they wished more teachers used humor in the nursing classroom. The results from the Humor Questionnaire suggest that humor is appropriate in the nursing classroom. These results were similar to the reviewed literature, which indicated that students appreciated the use of humor in the classroom and that it decreased anxiety, increased student-instructor connections and communication, and helped with forming trusting relationships (Ahern, 2009; Chauvet & Hofmeyer, 2006; Golchi & Jamali, 2011; Lei et al., 2010; Moscaritolo, 2009; Nahas, 1998; Torok et al., 2004; Ulloth, 2002).

These results showed that using humor in the nursing classroom lectures improved the level of attention of these sophomore students. The students also showed that they were able to be mentally active after the humorous lectures by retaining the lecture information. The study results were matched with the cognitive learning theory of the learning process. The key to learning from this perspective lies in cognition elements like perceptions, memory, and thinking (Candela, 2012). Cognitive learning theory helps educators and students to realize their potential when it is applied to the learning process in nursing. Humor can improve the classroom environment, motivating the students to think and to memorize (Martin, 2007). In this study, those students who attended a lecture that used humor showed improvement in their cognitive learning process. The humor effected this improvement by providing positive learning outcomes and increasing the connections between the teachers, students, and lecture content.
Strengths and Limitations of the Study

Strengths

Many strengths of this research were noted. The use of humor as a teaching strategy in nursing is minimally addressed in nursing research. The demand on an integrative teaching strategy is currently emerging; using humor by employing the technological advancement of PowerPoint presentations will help nurse educators to increase their hold on nursing students’ attention. Furthermore, this study used the prequiz and postquiz scores to measure the effectiveness of using humor on the students’ attention and their information retention; this study measurement was used here for the first time in the field of nursing.

The implementation of humor in nursing lectures for sophomores was an effective teaching strategy for this level of nursing education. Using and employing the technology design of the funny PowerPoint templates in the humorous lecture is a cutting-edge method for introducing humor into the nursing classroom. The researcher used new slides of a PowerPoint template that showed the teacher making fun of himself in the humorous lectures by drawing his shape and face in a funny way to encourage students to ask questions and retain information. In addition, the researcher’s intervention did not require any expenditure, and the instructor can use professional humor that presents class material like funny comments and transitions that relate to the content of different nursing lectures. More than 10 nursing students who attended the humorous lectures came and said that they wished their other nursing classes contained humorous material, and they wished their teachers used humor also. The researcher intended to choose the hardest of the lecture material that sophomore nursing students will experience in their course, which is the theoretical foundation of nursing practice. The research intervention
presented a helpful teaching strategy for every nurse educator to use to increase the level of the nursing students’ attention and improve their performance in the nursing classroom.

Other strengths of the project included the use of the Humor Questionnaire. The Humor Questionnaire was used by Ulloth (1998) and has been reported to be a valid instrument for measuring the effect of using humor in the nursing classroom. The Humor Questionnaire scores showed the appreciation of the students and the need to use humor in nursing classrooms.

**Limitations**

The research did have some limitations. The first limitation was the small sample size, 46 students from a class of 111. The students were asked to participate voluntarily, and that may not have been sufficient encouragement for all the students to participate. Also, because the participants were all sophomore nursing students who were starting their experience in nursing courses for the first time, they may have hesitated to participate in the research. Student participants might find receiving a reward an incentive to participate in future research.

The second limitation was the five students who were absent from the intervention lectures and postquizzes. Three were absent from the intervention group and two from the control group. It is impossible to control the students’ presence in the classroom lectures although all of the participants were informed twice by e-mail by this researcher’s faculty advisors about the date of the two lectures and which lecture they were assigned to.

The third limitation of the research was that the intervention took place in one lecture setting. Multiple class settings may provide a more comprehensive interpretation of the effect of using humor in a nursing classroom. It is strongly recommended that future studies use humor in different nursing lectures and apply humor to different nursing courses. These research
participants were between 19 and 50 years of age; however, they were all sophomores. It is recommended that future research use humor with nursing students at different levels, for example, with juniors and seniors. Also, it is recommended to use humor in classrooms of different cultures and measure the effect of that intervention. The assigned class instructor was unavailable the day of the study intervention and a new instructor presented the lecture with non-humorous content. The students may have received the material differently if the normal instructor present the lecture. In future research, there should be multiple questions or added qualitative components to measure the level of attention among nursing students during the experience of the lecture with humor.

**Recommendations for Nursing Education and Research**

Using humor as a teaching strategy in nursing education may improve students’ information retention and increase their level of attention. Nursing students were appreciative of their teachers who used humor to share and facilitate the lecture material; this use of humor served as a pleasurable teaching strategy in nursing. Applying humor to different nursing courses is strongly recommended. This study intervention recommends using junior and senior nursing students for future research. It is also recommended that future research examine the different effects of using humor in the nursing classroom. In this study, prequiz and postquiz were used to measure the difference in the students’ scores. For future research, it is recommended that the midterm and the final exam be used to measure the differences in the students’ scores. Further research on using humor in nursing practice is also recommended.
Conclusion

Using humor as a teaching strategy was tested in a sophomore nursing classroom to see if it affected retention of material and students’ attention. Humor, such as funny stories and comments or transitions, was used in a lecture on the theoretical foundation of nursing practice, a professional role of nursing course. A pre- and post quiz were conducted to examine the effect of using humor on the students’ retention of information retention and level of attention. The paired sample t test (two-tailed test of significance) was conducted to analyze the quiz scores. There was a statistically significant improvement in the students’ postquiz scores over the prequiz scores after the experience of the lecture with humorous content. The students who experienced the lecture with no humorous content showed no statistically significant change. The intervention in this research provided the nurse educators with evidence that could be used to improve sophomore nursing students’ information retention and to increase their level of attention in the nursing classroom by introducing humor into the instruction.
References


Lundberg, E., & Thurston, C. M. (2002). *If they are laughing, they just might be listening* (3rd ed.). Fort Collins, CO: Cottonwood Press.


AUTOBIOGRAPHICAL STATEMENT

Mohammed A. Alkhattab

Mr. Alkhattab is an international student who graduated in 2007 with a bachelor of science in nursing (BSN) from the College of Nursing, Mosul University, Iraq. He graduated first in his class, and he was awarded a scholarship from the Iraqi government to pursue a master’s degree in the United States of America. He was admitted to Valparaiso University, College of Nursing, for the 2011–2012 school year. This makes him the first Iraqi student to be accepted in a nursing master’s program at Valparaiso University. Mr. Alkhattab is also the first Iraqi student from the College of Nursing, Mosul University, to earn a master’s degree from a U.S. university.

For three years, Mr. Alkhattab worked in different clinical settings, such as pediatric departments and medical surgical units. His work was totally focused on instructing nursing students. His work gave him experience in teaching nursing students from different cultural backgrounds. He participates in training programs that focus on developing nursing instructor skills for which the World Health Organization is responsible. Mr. Alkhattab became interested in developing teaching strategies to help nursing students retain the information presented in lectures and to increase their attention. His experience brought him to using humor as a teaching strategy in nursing classrooms, and that is what prompted him to develop this project. His research study has been accepted for poster presentation in two regional conferences, the Nursing Research Consortium of North Central Indiana (NRC-NCI) and the Northwest Indianan Nursing Research Consortium, and in one international conference, the Elsevier Faculty Development Conference, Contemporary Forum, 2013. He hopes that the results of this study will help nurse educators and nursing students to advance in the learning process.
HUMOR AS A TEACHING STRATEGY

Appendix A

Faculty Consent Form

You are invited to participate in a research study that will measure the effectiveness of using humor as a teaching strategy to increase attention and information retention in nursing students. Faculty participants recruited for this study are nurse educators teaching in NUR 201, Professional Roles in Nursing course at Valparaiso University in Fall 2012 semester. The study is being conducted by Mohammed Alkhattab, MSN student at Valparaiso University in the College of Nursing. Your participation in the study is voluntary. Please read the information below and feel free to ask questions about anything you do not understand before deciding whether or not to participate.

Your questions or concerns about this study may be answered by Mohammed Alkhattab, e-mail: Mohammed.al-khattab@valpo.edu, cell phone: 219-405-4290, or Dr. S. Kim Genovese, Associate Professor and Research Advisor, 219-464-5063, kim.genovese@valpo.edu.

Purpose of the Study

The purpose of this study is to measure the effectiveness of using humor as a teaching strategy and the effect it has on attention and information retention for sophomore nursing students.

Procedures

You have been asked to participate in this study because you are a faculty member in NUR 201, Professional Roles in Nursing for the Fall2012 semester. As a faculty member, you will be asked to participate in the use of humorous and non-humorous educational techniques in your course.
Potential Risks and Discomforts

The risks to you are considered minimal, although there may be some anxiety if this is exposure to a new teaching modality for you.

Potential Benefits to Subjects and/or Society

Findings from this study may help other faculty members to select the teaching strategy of humor in future nursing presentation.

Study results may provide a teaching technique to enhance student attention and aid in information retention of course materials.

Payment for Participation

You will not receive any payment or other compensation for participation in this study. There is also no cost for you to participate.

Confidentiality

All study data and information will be stored in a secure database. No individual identity will be shared. However, the study information may be shared in aggregate form in nursing publications or presentations.

Participation and Withdrawal

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. There is no penalty if you withdraw from the study.
Rights of Research Subjects

If you have any questions about your rights as a research subject, you may contact the Valparaiso University Institutional Review Board (IRB). You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB has reviewed and approved this study.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

____________________________
Printed Name of Faculty Participant

____________________________  ______________________
Signature of Faculty Participant  Date
Appendix B

Student Consent Form

You are invited to participate in a research study that will measure the effectiveness of using humor as a teaching strategy on the attention and information retention in nursing students. Participants recruited for this study are sophomore nursing students enrolled in NUR 201, Professional Roles in Nursing course at Valparaiso University in Fall 2012 semester. Participants must be 18 years or older. The study is being conducted by Mohammed Alkhattab, MSN student at Valparaiso University in the College of Nursing. Your participation in the study is voluntary. Please read the information below and feel free to ask questions about anything you do not understand before deciding whether or not to participate. Your questions or concerns about this study may be answered by Mohammed Alkhattab, e-mail: Mohammed.al-khattab@valpo.edu, cell phone: 219-405-4290, or Dr. S. Kim Genovese, Associate Professor and Research Advisor, 219-464-5063, kim.genovese@valpo.edu.

Purpose of the Study

The purpose of this study is to measure the effectiveness of using humor as a teaching strategy and the effect it has on attention and information retention for sophomore nursing students.

Procedures

You have been asked to participate in this study because you are a student in NUR 201, Professional Roles in Nursing for the Fall 2012 semester. As a participant, you will be asked to complete a short questionnaire about humor. You will also be a recipient of lecture content presented in a humorous and non-humorous technique.
Potential Risks and Discomforts

The risks to you are considered minimal, although there may be some anxiety if this is exposure to a new teaching modality for you.

Potential Benefits to Subjects and/or Society

Findings from this study may help other faculty members to select the teaching strategy of humor in future nursing presentation.

Study results may provide a teaching technique to enhance student attention and aid in information retention of course materials.

Payment for Participation

You will not receive any payment or other compensation for participation in this study. There is also no cost for you to participate.

Confidentiality

All study data and information will be stored in a secure database. No individual identity will be shared. However, the study information may be shared in aggregate form in nursing publications or presentations.

Participation and Withdrawal

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. There is no penalty if you withdraw from the study. There are no effects on your course grade if you choose to participate or not participate in this study.
Rights of Research Subjects

If you have any questions about your rights as a research subject, you may contact the Valparaiso University Institutional Review Board (IRB). You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB has reviewed and approved this study.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

____________________________
Printed Name of Student Participant

____________________________
Signature of Student Participant

____________________________
Date

Date of IRB approval: August 31, 2012
Project term date: Fall, 2012
Appendix C

Demographic Form

Study of Using Humor as a Teaching Strategy in a Nursing Baccalaureate Classroom

Principle Investigator: Mohammed Alkhattab, MSN Student

Instructions: Please respond to these questions and return

Student ID number (for reference purposes only) ........................................

Age ......................

Gender ...... M ...... F

Ethnicity...... White ....... African American ....... Asian American

....... Hispanic ....... Native American ................. Other (please specify)

Current Occupation ..................................................................................

Current Academic Level ...... Freshman ...... Sophomore ...... Junior ...... Senior

Have you received a bachelor’s degree in a different major prior to enrolling in the BSN program at Valparaiso University? ...... Yes ...... No If yes, what was your major?

........................................................................................................

Is this the first time you have enrolled in NUR 201 at Valparaiso University? ...Yes ...No

Have you taken nursing courses at any other institution? ...... Yes ...... No

If yes, please list ..............................................................................

How many credit hours are you currently taking this semester? .................

How do you characterize your scholastic abilities?

...... Excellent ...... Above Average ...... Average ...... Below Average ...... Poor

Have you experienced humor in nursing classes before? ...... Yes ...... No

Thank you for your participation.
Appendix D

Lecture With Humorous Content

The contents of this lecture based on 18th, 19th, and 20th centuries, and these content are extremely old. Don’t try to lose your attention you will sleep!!!!!!
Interdisciplinary Theories Used in Nursing

- Human Needs Theory
  - Maslow's Hierarchy (1970)
- General System Theory
  - Von Bertalanffy (1965)
- Change Theory
  - Kurt Lewin (1943)
- Developmental Theory
  - Erickson, Piaget, etc.

H PEN
- Health
- Person
- Environment
- Nursing

Nursing Theorists
We Go Slow to Highest Floor
How are We Doing?
HUMOR AS A TEACHING STRATEGY

Florence Nightingale 1820-1910
- Environmental “Theory”
- Notes on Nursing (1860)
- Defined nursing practice
- Identified basic concepts

The most important practical lesson that can be given to nurses is to teach them what to observe.

Dorothea Orem 1914-2007
- Self-care Deficit Theory
- Nursing concepts of practice (1985)
- Definition of Nursing
- Human Needs
  - Universal self-care requisites
  - Development requisites
  - Health deviations

Virginia Henderson 1897-1996
- Nature of Nursing (1966)
- Definition of Nursing
- 14 Basic Needs
  - Sleep normally
  - Eat & drink adequately
  - Dress & undress
  - Avoid danger
  - Elimination
  - Communicate
  - Sleep
  - Work
  - Sleep & rest
  - Worship
  - Maintain temperature
  - Recreation
  - Keep body clean
  - Normal development

Mini Me

Hildegard Peplau 1909-1999
- Focus of Nursing
  - Goal oriented interpersonal process
  - Serves as a resource person, counselor, and surrogate
  - Nurse-client relationship a collaborative process with mutually defined goals
- Nurse-client phases
  - Pretransaction
  - Orientation
  - Intervention
  - Termination

Sister Callista Roy 1939-
- Adaptation Model (1964)
- Definition of Nursing
- Four Modes of Adaptation
HUMOR AS A TEACHING STRATEGY

Betty Neuman 1924-
★ Health Care System Model (1972)
★ Definition of Nursing
★ Health Prevention
  * Primary
  * Secondary
  * Tertiary

Rosemarie Parse
★ The Art of the Human Becoming Theory
★ Work related to Rogers
★ Nurse-person process:
  * A special way of being with in
  * The nurse is attentive to
    moment-to-moment changes
  * The nurse bears witness to the person’s
    own living of value priorities

Jean Watson
★ Theory of Human Caring (1979)
★ Nursing focuses on
  * The interrelationship between health,
    illness and human behavior
  * Promoting & restoring health as well
    as preventing illness
  * The caring process that is interpersonal and
    based on human behavior & response
  * Delivering care that comforts, offers
    compassion, and empathy

Martha Rogers 1914-2007
★ Science of unitary beings
★ Individual as an energy field
  coexisting within the
  universe
★ All things give off energy
  fields & wave patterns
  that relate to each other

Questions
Remember
Run

Genius Circle
Appendix E

Lecture Without Humorous Content

Theoretical Foundation of Nursing Practice

- Explain phenomenon
- Describe, explain and predict or prescribe
- Perspective
- Organize
- Interpret

Theoretical Foundation of Nursing Practice

Theories and Defining Nursing
- Research
- Practice
- Education

Components of a Theory
- Concepts
- Definitions
- Assumptions
- Phenomenon

Interdisciplinary Theories Used in Nursing
- Human Needs Theory
  - Maslow’s Hierarchy (1970)
- General System Theory
  - Von Bertalanffy (1969)
- Change Theory
  - Lewin (1962)
- Developmental Theory
  - Erickson, Piaget, etc..

Nursing Paradigm

Building blocks of nursing theory
Major concepts in nursing (4)
- Health
- Person
- Nursing
- Environment
**Florence Nightingale 1820-1910**
- Environmental "Theory"
- *Notes on Nursing* (1860)
- Defined nursing practice
  - The goal of nursing is to place the individual in the best condition for nature to act by manipulating the environment.
- Identified basic concepts

**Henderson's 14 Basic Needs**
- Breathe normally adequately
- Eat & drink
- Elimination
- Move
- Sleep & rest
- Dress & undress
- Maintain temp clean
- Keep body
- Avoid dangers
- Communicate
- Worship
- Work
- Recreation
- Normal development

**Nightingale Model**
- Health: "positive" of which pathology is the "negative."
  - In relation to healing, Nightingale wrote, "Nature alone cures."
- Person: described in relation to the environment: the person is the recipient of nursing care
- Nursing: putting the patient in the best condition for nature to act upon them; nursing, as a profession, is a "calling."
- Environment: stressed in relation to healing properties of the physical environment, such as from air, light, warmth, and cleanliness.

**Hildegard Peplau (1909-1999)**
- Focus of Nursing
  - Goal oriented interpersonal process
  - Serves as a resource person, counselor, & surrogate
  - Nurse & client relationship a collaborative process with mutually defined goals
- Nurse-client Phases
  - Preinteraction, Orientation, Intervention, & Termination Phase

**Virginia Henderson 1897-1996**
- *Nature of Nursing* (1966)
- Definition of Nursing
  - Function of nursing is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery that he could perform unaided if he had the necessary strength, will or knowledge.
- 14 Basic Needs

**Dorothea Orem (1914-2007)**
- Self-care Deficit Theory
- *Nursing Concepts of Practice* (1985)
- Definition of Nursing
  - A creative effort to help another person to maintain or improve their health.
  - Consists of three nursing systems: wholly compensatory, partially compensatory, and supportive/educative.
- Human Needs
  - Universal self-care requisites
  - Developmental requisites
  - Health deviations
Sister Callista Roy (1939- )
- Adaptation Model (1964)
- Definition of Nursing
  - Goal to promote positive adaptation
- Four Modes of Adaptation
  - Physiologic Needs
  - Self Concept
  - Role Function
  - Interdependence

Betty Neuman (1924- )
- Health Care Systems Model (1972)
- Definition of nursing
  - A unique profession concerned with all the variables affecting an individual's response to stressors.
- Health Prevention
  - Primary
  - Secondary
  - Tertiary

Jean Watson
- Theory of Human Caring (1979)
- Nursing focuses on
  - the interrelationship between health, illness, and human behavior.
  - promoting & restoring health as well as preventing illness
  - the caring process that is interpersonal & based on a relationship of caring and trust
  - delivering care that comforts, offers compassion & empathy

Martha Rogers
1914-2007
- Science of unitary beings
- Individual as an energy field coexisting within the universe
- All things give off energy fields & wave patterns that relate to each other

Rosemarie Parse, RN, PhD, FAAN
- The Art of the Human Becoming Theory
- Work related to Rogers
- Nurse-person process:
  - A special way of being with in
  - The nurse is attentive to moment-to-moment changes
  - The nurse bears witness to the person's own living of value priorities.
Appendix F

Prequiz

Students ID number ……………………………..

NUR 201 Professional Roles in Nursing
Theoretical Foundation of Nursing Practice Lecture, October 2, 2012

Circle the Correct Answer

1. A theory in nursing is a set of:
   a. concepts that reflect the domain of nursing practice.
   b. concepts, definitions, and propositions that explain a phenomenon.
   c. definitions that measure nursing functions.
   d. relationships and assumptions that formulate nursing legislation.

2. Nursing theories are a unique body of knowledge that is used to:
   a. establish criteria to develop quality of nursing education.
   b. guide and develop nursing practice.
   c. guide and develop nursing practice, education, and research.
   d. offer a framework for generating new research.

3. The nurse understands that Maslow’s hierarchy of needs is an interdisciplinary theory that is useful for:
   a. designating needs of nursing care.
   b. providing physiological and safety needs to the patients.
   c. providing love and belonging needs to the patients.
   d. designating priorities of nursing care.
4. The nursing paradigm includes:
   a. concept, assumption, definition, and phenomena.
   b. health, person, environment, and nursing.
   c. nurse, professor, students, and college.
   d. philosophy, definition, model, and patient.

5. The first nursing theorist who used the term self-care is:
   a. Dorothea Orem
   b. Florence Nightingale
   c. Hildegard Peplau
   d. Martha Rogers

6. My attention in the lectures for NUR 201 is  
   
   | Not engaged | Occasionally engaged | Neutral | Mostly attentive | Completely attentive |
   | 1            | 2                    | 3       | 4                | 5                    |
Appendix G

Postquiz

Students ID number ....................................

NUR 201 Professional Roles in Nursing
Theoretical Foundation of Nursing Practice Lecture, October 23, 2012

Circle the Correct Answer

1. A theory in nursing is a set of:
   a. concepts that reflect the domain of nursing practice.
   b. concepts, definitions, and propositions that explain a phenomenon.
   c. definitions that measure nursing functions.
   d. relationships and assumptions that formulate nursing legislation.

2. Nursing theories are a unique body of knowledge that is used to:
   a. establish criteria to develop quality of nursing education.
   b. guide and develop nursing practice.
   c. guide and develop nursing practice, education, and research.
   d. offer a framework for generating new research.

3. The nurse understands that Maslow’s hierarchy of needs is an interdisciplinary theory that is useful for:
   a. designating needs of nursing care.
   b. providing physiological and safety needs to the patients.
   c. providing love and belonging needs to the patients.
   d. designating priorities of nursing care.
4. The nursing paradigm includes:
   a. concept, assumption, definition, and phenomena.
   b. health, person, environment, and nursing.
   c. nurse, professor, students, and college.
   d. philosophy, definition, model, and patient.

5. The first nursing theorist who used the term self-care is:
   a. Dorothea Orem
   b. Florence Nightingale
   c. Hildegard Peplau
   d. Martha Rogers

6. My attention in today’s lecture for NUR 201 was

<table>
<thead>
<tr>
<th>Not engaged</th>
<th>Occasionally engaged</th>
<th>Neutral</th>
<th>Mostly attentive</th>
<th>Completely attentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Appendix H

Humor Questionnaire Used with the Experimental Group

Students ID number …………………………

Please circle the response that indicates your level of agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I appreciate my teachers’ use of humor in the nursing classroom.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>2. Humor interferes with my learning</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>3. Humor makes me more relaxed in my nursing classes.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>4. I feel more comfortable with the teachers who use humor in the nursing classroom.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>5. I wish fewer teachers would use humor.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>

Humor Questionnaire is adapted from “The Intentional Classroom Humor in Nursing: A Multiple Case study”, 1998. Humor Questionnaire is used with the permission of Dr. Joan Ulloth, August 10, 2012
Appendix I

The Original Copy of the Humor Questionnaire

Humor Questionnaire

Please circle the response that indicates your level of agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th>Student ID number</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I appreciate my teachers' use of humor in the nursing classroom.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>2. Humor interferes with my learning.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>3. Humor makes me more relaxed in my nursing classes.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>4. I feel more comfortable with the teachers who use humor in the nursing classroom.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>5. I wish fewer teachers would use humor.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>6. The teacher on the nursing faculty who uses the most humor in her/his classroom is course taught</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Briefly describe one incident where humor was used in the classroom. In what way did this use of humor affect your learning of class content?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Appendix J

Permission to Use Humor Questionnaire

Mohammed Al-Khattab< mohammed.al-khattab@valpo.edu>

Asking for permission to use the Humor Questionnaire - Mohammed Alkhattab

Ulloth, Joan Joan.Ulloth@kc.edu, August 10

To me

Hello Mohammed,

It is always gratifying to me that someone wants to continue using humor in nursing classrooms.

You have my permission to modify the questionnaire. In return, I ask that you keeping me informed of how you will modify the questionnaire, and what results you achieve from your efforts.
I wish you good results and a high level of returns from your students.

Joan Ulloth, PhD, RN, CNE
Professor of Nursing
Kettering College

3737 Southern Blvd
Kettering, OH 45429
937-298-3399 ext 55623

Please note that my e-mail domain is now changed. Please use joan.ulloth@kc.edu

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Appendix K

IRB Approval

To: Mohammed Ahmed Alkhattab

From: Julie Brandy
Chair, IRB

RE: The Effect of Using Humor as a Teaching Strategy

Date: August 31, 2012

The IRB has approved the above study as exempt research on August 31, 2012. The project was reviewed in accordance with all research statutes and regulations.

The researcher has continuing approval of this project. However, if additional protocol changes are planned, approval must be sought from the IRB prior to implementing those changes. When the project is completed, notify the Office of IRB.

Good luck with your work. Please retain a copy of this letter for your records.