The Lived Experience of Listening to Music Preoperatively

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ABSTRACT

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Music has been shown to have positive physiological and psychological effects on patients in previous studies. In this study, this author will look at the lived experience of listening to music preoperatively and evaluate the findings from a phenomenological perspective. The researcher will specifically describe and interpret the themes that emerge from the interview data with the participants that listened to music preoperatively. It is expected that some of the themes that will emerge will include: comfort, familiarity, and distraction.
CHAPTER 1
INTRODUCTION

It is well known that patients undergoing surgical procedures frequently experience fear and anxiety. It is also well known that music has the ability to affect moods and emotions. A background and significance of the related issues and purpose for the study will be discussed.

Background and Significance

Since ancient times, music has been recognized as having therapeutic value. The New American Bible recounts that David would be summoned to play his harp for King Saul to help him ‘feel better’ 1 Samuel 16:23. Among the ancient Greeks, the god Apollo was most associated with the arts of music and medicine (United Nations of Roma Victrix [UNRV], 2008). Even in early nursing, Florence Nightingale used music as a nursing intervention as part of the healing process for wounded soldiers of the Crimean War. She described how her nurses used melodies to ease pain. Music was considered part of the environment and Nightingale felt that nursing should control the environment to put the patient in the best place for healing to occur (McCaffrey & Locsin, 2002). Currently, the American Music Therapy Association is promoting music for the treatment of cognitive disorders and neurological impairments such as dementia, stroke, and Parkinson’s disease. Music therapy is also being recommended for stress relief and pain control (Marwick, 2000).

Anxiety and pain are often experienced by patients undergoing surgical procedures (Augustin & Hains, 1996). Preoperative anxiety has been found to be a predictor for adverse physiological and psychological responses to surgery. Physiologically, anxiety causes adrenaline to be released, creating a change in vital signs such as increased blood pressure, temperature, and sweating. Psychologically, anxiety can create irritability and an inability to
concentrate as well as behavior and personality changes (Vaughn, Wichowski, & Bosworth, 2007). Patients who experience increased preoperative anxiety also have longer recovery periods, more postoperative complications (Parris, Matt, Jamison, & Maxon, 1988), and increased anesthetic requirements (Maranets & Kain, 1999). Feeling a loss of control, as well as fear of the unknown, are contributing factors for preoperative anxiety (Durling, Milne, Hutton, & Ryan, 2007; Augustin & Hains).

The Department of Health (2000) stated in the National Health Service Plan, “around three-quarters of operations will be carried out on a day-care basis with no overnight stay required” (Department of Health, p. 19). The modern healthcare environment, with its new technologies and demand for cost effective initiatives, has led to an increase in same-day surgery cases. This has created a decreased amount of nursing time for direct patient contact and preoperative education, and less time to offer cognitive interventions that help reduce anxiety (Mitchell, 2003).

Measuring anxiety has become difficult with the increase in short stay cases as well. New ways to measure anxiety may need to be considered. Self-care interventions are becoming important for positive modern elective surgery. Listening to music is a simple and inexpensive intervention that has been found to reduce preoperative anxiety and postoperative pain. Further research must be conducted to examine the patient’s emotional response to such subtle therapeutic interventions (Mitchell, 2003).

Statement of the problem

Although there is research available to show the beneficial effects of listening to music for many different health problems as perceived by the researcher, few studies that focus on the lived experiences of patients while listening to music have been documented. If nurses are to
provide therapeutic interventions to ease a patient’s preoperative experience, patients’ perceptions of listening to music preoperatively need to be identified. Nursing literature needs research that can help improve the understanding of such cognitive therapies.

**Purpose of the study**

The purpose of this research study is to explore the broader effects of listening to music preoperatively from the patients’ perspective, and describe the essence of the preoperative experience as perceived by patients who listen to music. Providing new knowledge about listening to music as an intervention of the preoperative experience can guide future research and practice.

**Research Question**

What is the lived experience of listening to music preoperatively?
CHAPTER 2
REVIEW OF THE LITERATURE

This researcher completed a thorough literature review using the keywords: “preoperative”, “anxiety”, “music”, “music therapy”, “surgery”, and “qualitative”, using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, Health Source, and Greenfile databases. An internet search of the keywords was also performed in the Google Scholar search engine. The resulting review will be divided into two areas, theoretical literature and research literature.

Theoretical Literature

Music therapy has been linked to lower heart rates, decreased blood pressure, and stress reduction, including pain control. Music has a direct physiological effect through the autonomous nervous system. Auditory stimulation of music occupies the neurotransmitters diverting feelings of anxiety, fear, and pain resulting in a more positive experience. Allowing one’s self to listen to a soothing musical sound will decrease the respiratory rate, lower the blood pressure, and create a deeply relaxed state (Priesnitz, 2006).

Nilsson (2008) conducted a review to identify randomized controlled studies that assessed the effects of music on peri-operative pain and anxiety. The author found that nearly half of the studies reported a reduction in anxiety with a music intervention. It was also found that the music genre and duration of listening time did not influence the effects of the music intervention. It was recommended that the music used in clinical practice be slow and flowing at 60 to 80 beats per minute, non-lyrical, self-selected with guidance, a volume level not to exceed 60 decibels, a minimum duration of 30 minutes of listening time and, with suitable equipment and documentation of the effects.
A meta-analysis could not be completed in the 42 studies chosen because the types of music differed, the listening times differed, and the patients’ care differed within each study. The studies were instead reviewed for the quality of their methodology and analyzed according to outcome measures. The studies in the review included 3,936 patients between the ages of 34 to 76 years old. All patients in the studies underwent different types of elective surgeries. The preoperative music intervention period was included in 14 of the studies with the other studies addressing intra-operative and postoperative music listening respectively. A variety of music was listened to through headphones including, slow rhythmical, piano, new age, self selected choices of Eastern and Western, easy listening, Chinese popular, classical, environmental, instrumental, and country western. There were many different methodological differences between the studies. Most of the studies used the State-Trait Anxiety Inventory (STAI) and measurement of vital signs to assess anxiety. It was recommended that further research is needed to evaluate the effects of specifically composed music designed for individual patients, groups and settings. Future research should also evaluate the effects of music interventions related to patient gender, age and ethnicity (Nilsson, 2008).

Research Literature

McCafferey and Good (2000) conducted a qualitative study on the experience of listening to music while recovering from surgery. In this study, participants were interviewed and observed. Observation occurred while patients’ listened to music and notes were taken on their affect, demeanor, and posture. The themes that emerged through the analysis process included: comfort in a discomforting condition, familiarity in a strange environment, and distraction from pain in the postoperative period. These themes demonstrated that music has healing value to postoperative patients. This study confirmed that having an understanding of what it was like to
listen to music postoperatively added to the aesthetic knowledge in nursing, giving nursing the ability to vicariously experience the patient’s feelings.

In an experimental study on the effects of music during surgery, 40 patients age 18 and older, undergoing minor local anesthesia were non-randomly assigned into groups. The first week, 20 patients were assigned to the experimental group. They were given a choice of musical categories to listen to during their surgery via headphones. The musical categories included classical music, contemporary popular music, or Chinese popular music. The second week, 20 patients were assigned to the control group and did not listen to music during their surgery, nor did they wear headphones. Patients in the group wearing headphones and listening to music had significantly lower anxiety, blood pressure, and heart rate levels than those who did not listen to music. A two-sample t-test was completed to detect any baseline differences in pre-test variables (p<0.05). A t-test for paired samples compared pre-test and post-test variables for both groups. In the experimental group, patients were given an evaluation questionnaire following their surgical experience, it was found that listening to music was a patient satisfier found to be helpful, but respecting musical choice should be given consideration (Mok & Wong, 2003).

In a quasi-experimental study on the effects of music on preoperative anxiety, 93 patients, ages 18-35, were randomly assigned into an experimental group or a control group. All patients were asked to bring their favorite music to the hospital. Groups were assigned to rooms where they could read or visit. Their families could wait with them. The experimental group listened to self-selected music via headphones for 30 minutes prior to surgery. All surgeries were minor in nature and documented as ear-nose-throat surgery, orthopedics, plastics, and other general minor surgeries. It was found, on the State-Trait Anxiety Inventory (STAI), that patients who listened to music reported being less anxious. However, there were no significant
differences between the control group and the experimental group with regard to the physiological signs of anxiety such as blood pressure, heart rate, and electro dermal activity, or neuroendocrine variables such as cortisol, epinephrine, and norepinephrine. A two-way repeated Analysis of Variance (ANOVA) was performed for both behavioral outcomes and physiological outcomes (p < 0.05). It was recommended that self-selected music can be used to reduce anxiety preoperatively (Wang, Kulkarni, Dolev, & Kain, 2002).

In another experimental design, 42 patients were randomly assigned to the experimental and control groups. The experimental group was given preoperative instruction coupled with listening to music, while the control group was only given the preoperative instruction. All patients were given the STAI and vital signs were assessed, followed by the nurse performing the routine admission procedures and preoperative instruction.

The patients in the experimental group were given a choice of music to listen to via headphones for 15 to 30 minutes before surgery while resting in reclining chairs. The selection of music consisted of classical, environmental, new age, country-western, and general easy-listening. Vital signs and STAI scores were obtained 10 minutes before surgery began. Patients in the control group were not given music to listen to and their activities were not monitored. Friends and relatives were allowed to remain with the patients in the control group but the study did not state if family was allowed to remain with the experimental group.

Two-sample t-tests for independent groups compared pre-test and post-test scores. Group means and standard deviations for dependent samples on the experimental and control group were completed. It was found that patients in the experimental group had a significant decrease in heart rate and approached significant decreases in respiratory rate and diastolic blood pressure.
This study suggests that preoperative teaching in itself can decrease preoperative anxiety but listening to self-selected music appears to be more beneficial than teaching alone. This study did not ask patients their perception of the use of music and found that some individuals did not want to be distracted by music, but instead wanted to be aware of everything that was going on around them. A limitation of the study was not accounting for the impact of the presence of friends and family or other relaxation measures that could have contributed to the control groups decreased variables. Other limitations recognized included a small sample size and no inclusion of various ethnic backgrounds (Augustin & Hains, 1996).

Summary of the Literature Review

This researcher found a great amount of theoretical and research literature that supports using music to reduce health related ailments. Future research needs to address patients’ perspectives on music as a cognitive therapy. There were no studies found on the lived experience of listening to music preoperatively.

Conceptual framework

Katharine Kolcaba’s Comfort Theory will be used to guide this study. Kolcaba (1994) defined the nursing concept of comfort as “the satisfaction of the basic human needs for relief, ease, or transcendence arising from health care situations that are stressful” (p. 1178). The basic assumptions of her theory of comfort are that human beings have holistic responses to complex stimuli, human beings have a desire to have their comfort needs met, and comfort is relevant to the discipline of nursing.

Kolcalba (2003) identified three types of comfort: (a) relief – this is the state of having a specific discomfort relieved or specific comfort need met; (b) ease – this refers to a state of calm
or contentment for the patient; and (c) transcendence – this is the state in which one can arise above problems or pain. This includes the need for inspiration, strength, and motivation.

In addition to the three types of comfort, the human experience takes place within four contexts: physical, psychospiritual, sociocultural, and environmental. Physical comfort is defined as all physiological and homeostatic parts of the individual. Psychospiritual comfort is defined as an internal awareness of self, including esteem, identity, sexuality, meaning in one’s life, and one’s relationship with a higher being. Sociocultural comfort is defined as interpersonal, family, and societal relationships such as finances, teaching, health care personnel, family traditions, rituals, and religious practices. Environmental comfort is defined as the external background of human experience such as temperature, light, sound, odor, color, furnisher, and landscape (Kolcaba, 2003).
CHAPTER 3

RESEARCH METHODOLOGY

This chapter will discuss the research methodology for this study. It will be explained in detail and broken into parts starting with the research design, sample, study setting, and study procedure. The projected analysis and expected results will then be discussed.

Research Design

This qualitative study will use a hermeneutic phenomenological approach to explore the essence of the preoperative experience for patients who listen to music preoperatively. Phenomenology is a method of inquiry in which the subject matter is always the meaning of the lived experience. The phenomena can only be explained from the perspective of those who have experienced it. The goal of phenomenology is to fully describe, interpret, and show the phenomenon while remaining faithful to the lived experience (Van der Zalm & Bergum, 2000).

This researchers’ personal experience with music, in nursing practice and life, results in a desire to better understand the phenomenon of listening to music preoperatively. In phenomenology the researcher is a co-participant working with the study participant to realize an understanding of the experience. Likewise, the participant is a partner with the researcher in the investigation of the experience (McCaffrey & Good, 2000).

Sample

A purposive sampling method will be used in this study. This is the form of sampling that is best used in phenomenology. Participants will be selected from adult individuals who will have experience with the phenomena of concern, this will allow for an understanding of the lived experience. The sample size will remain small to allow each experience to be examined in depth. The selection process will target a diverse heterogeneous group including the diversity of
surgical procedures, age and gender. Diverse participation will increase the rigour of the study by seeking a deeper and fuller meaning of the experience. Sampling will continue until saturation is achieved. This usually ranges from one to a maximum of about ten participants (Kleiman, 2004; Mapp, 2008).

Patients who have an expected post-operative hospital stay of at least 3 days will be chosen because they will be in the hospital long enough to conduct this study. The inclusion criteria will also consist of patients who speak English and have no hearing impairment. Patients who meet the criteria will be identified by the hospital scheduling department and the researcher will be notified daily of possible participants.

Study Setting

Participants will be recruited from a Northwest Iowa surgery center located within a fully accredited and licensed hospital. Each room at this hospital is a private patient room where interviews will be conducted.

Study Procedure

Each potential participant will be contacted by the researcher and requirements for participation will be thoroughly explained. The researcher’s phone number will be provided to the potential participant and they will be asked to call if he or she is interested in participating in the study.

Institutional review board permission and approval to conduct the study will be obtained by all necessary facilities, organizations and departments. Each participant will be furnished with detailed information about the nature and purpose of the study and their function within the study. The interview method for gathering data and time commitment will be explained. Written informed consent will be obtained prior to the study and participants will be informed that they
can withdraw from the study at any stage without jeopardizing their treatment in any way. The participant’s information will remain anonymous using first names only.

Each participant who agrees to participate in the study will be encouraged to bring their choice of personal music and a music listening device with them to the surgery center. A large selection of music will also be provided for those participants who do not have music with them on admission to the hospital. Since musical preference is important in using music for comfort (Mok & Wong, 2003), the patient will not only be able to choose the music that they enjoy, but will also be able to change music choices as their moods and preferences change. Music will be available to the participants in a variety of ways. In a compact disc (CD) player with two large speakers, portable small CD player with ear phones, a central radio can be accessed by pressing the music button on the bedrail, or via their own personal music listening device.

Experiences of the participants will be obtained through unstructured interviews using a single key question encouraging participants to talk about their experience with listening to music preoperatively. No further questions will be asked but participants will be encouraged to speak more about something or elaborate on a statement to improve clarity and understanding. Active listening, non-verbal cues and probing will also be used to encourage responses. Taped interviews will be the primary form of capturing the retrospective experience of the participants. Interviews will be completed on the postoperative day following surgery or when the patient is feeling up to the interview during their postoperative hospitalization. Audio-taped interviews will be transcribed verbatim and brief notations will be taken by the researcher at the time of data collection to strengthen the recorded data and allow for ‘memo-ing’.

Instrument

The interviewing researcher will be the only instrument used in this study.
Projected Analysis

Using a holistic approach, the transcripts will be read and reread in their entirety to get a global sense of the whole and look for fundamental meanings. The text will be read while listening to the recorded interviews looking for statements and meanings that appear vital or revealing about the phenomena. Sentences and sentence clusters will be carefully examined to gain more detailed meaning and determine what can be revealed about the experience described.

Significant statements will be compared to look for similarities and differences between the participants and common characteristics will be documented. Major themes will emerge from this analysis process.

Expected Results

It is expected that the major themes emerging from this study will include: (a) comfort in an uncomfortable situation; (b) familiarity in a strange environment; and (c) distraction from anxiety. This researcher believes that music will provide comfort for the patients providing a relaxed sensation. It is believed that patients who listen to the music of their choice will have a sense of familiarity so that they can feel that they are in their own space. It is also believed that these patients will have a decrease in anxiety as concentration on the music will provide a distraction from the preoperative wait.

Comfort theory proposes that when patients and families are more comfortable, they are more fully engaged in health seeking behaviors that include internal behaviors, external behaviors, or a peaceful death. When these health seeking behaviors occur, the institution benefits in such areas as reduced costs of care, shortened lengths of stay, increased patient satisfaction, improved financial stability, and positive publicity (Kolcaba, 2003).
REFERENCES


