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Tom Janisse, MD, MBA, Editor-in-Chief

The Permanente Journal

500 NE Multnomah St. Suite 100

Portland, OR 97232

Dear Editor Dr. Janisse:

Enclosed please find a manuscript entitled: "Music as a Patient-Centered Care Strategy: A Quality Improvement Project," which I am submitting for exclusive consideration for publication as an article in *The Permanente Journal*.

The paper demonstrates that staff and visitors of patients at a medical center in South San Francisco value music streamed into the hallways. As such, this clinical medicine paper should be of interest to a broad readership, including those interested in patient-centered care.

Thank you for your consideration of my work! Please address all correspondence concerning this manuscript to me.

Please feel free to correspond with me call me or by e-mail at [Hayley.Greve@yahoo.com](mailto:Hayley.Greve@yahoo.com).

Sincerely,

[Hayley J. Greve, MS, RN](#)  
[DNP Candidate](#)

[Attachments:](#)

[\[manuscript, disclosure/conflict of interest, and information on authors, reference list, list of acknowledgements\]](#)



**Music as a Patient-Centered Care Strategy:  
A Quality Improvement Project**

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### **Author Profiles**

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Dr. Cindy Costanzo, PhD, RN, CNL, is an Associate Professor at Creighton University and has more than 30 years of health care executive experience.

Kathleen Nelson, MPA, RN, CPHRM, is a National Leader for Risk Management & Patient Safety at Kaiser Permanente. She also has been an executive in health care for more than 25 years.

From: Nowatzke, Patsy

To: Greve, Hayley

Re: IRB

I do not see any research here as defined by IRB policy “Research is a systematic investigation that includes research development, testing, and evaluation and is designed to develop or contribute to generalizable knowledge. If, according to this definition, the proposed activity is not research, then IRB review is not required.”

Thanks for checking

Patsy Nowatzke, RN, CIP, MHSA

IRB Director

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**From:** Hayley Greve [mailto:hayley.greve@yahoo.com]

**Sent:** Wednesday, August 08, 2012 3:22 AM

**To:** Nowatzke, Patricia A.

**Subject:** IRB

Dear Ms Patricia Nowatzke

I am a DNP student working on my project with Dr Costanzo in the School of Nursing. I am going to committee on the 17th and need to know if we need IRB approval.

I am working in a Kaiser Permanente facility in California. We will not be touching patients and will be in the hallways or on the nursing units. The purpose of my of this quality improvement project is work with a steering committee to: a) facilitate implementation of music therapy within a patient and family centered care microsystem using the Kotter's change model; and b) compare patient satisfaction scores between a microsystem with and without music therapy.

It is our opinion this is a quality improvement project but want confirmation from you. If we don't need approval but want to publish this down the road do we need something from IRB telling us that we inquired?

Thanks in advance

Hayley J. Greve MS, RN

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## Abstract

**Context:** Music in the health care environment can ease people's minds and serve as a positive diversion.(1) Carefully selected music brings balance, unity, and harmony to the soul.(2)

Implementing music across the health care spectrum is a benefit to visitors, patients and staff.

**Objective/Design:** The purpose of this quality improvement project was to examine the effects of streaming music into the hallways of a medical center. Specific aims were:

Aim 1: Collaboratively implement the music pilot.

Aim 2: Establish an education program for implementation of music.

Aim 3: Evaluate music both qualitatively and quantitatively.

**Main Outcome Measures:** Interviews were conducted with 58 groups of either staff or visitors at the medical, surgical, or step-down units during the 1.25 hours the music played. The music was played at 51 decibels, which was equal to the average noise level in the facility. The music chosen had no percussion.

**Results:** Two questions on the survey were based on a 1-5 Likert scale, with one being not valuable and five being very valuable. An average of 4.1 was received when asking how valuable the music was. On the question regarding whether the music should continue, an average score of 4.5 was received. A theme emerged indicating visitors and staff found the music relaxing.

**Conclusions:** A majority of those interviewed requested that the music continue. Issues regarding noise differences between the units require further investigation.

**Key Words:** Music, Patient-centered care.

Music as a Patient-Centered Care Strategy:  
A Quality Improvement Project

### Background Knowledge

Chaotic health care environments, rising costs, health care reform, and consumer demand have compelled health care professionals to consider changes to the traditional health care model. As cited by the Institute of Medicine (IOM), the consumer's experience with non-healing health care environments has been unsatisfactory in meeting their needs. Evidence suggests such environments are chaotic and unsafe, producing poor outcomes while costs continue to rise.(3) The United States currently spends 18 percent of its gross domestic product on health care expenses.(4) According to the Centers for Medicare and Medicaid Services (CMS), in 2010, the cost of health care in the United States neared \$2.6 trillion, more than 10 times the \$256 billion spent in 1980.(5) Even with the aforementioned spending, the United States still ranks 37th in the world for quality of health care and has made minimal progress on creating safe organizations.(6)

The IOM, the Affordable Care Act, and The Joint Commission have called for a transformation of the health care system. All three have endorsed implementation of a patient- and family-centered care environment. In the 2001 *Crossing the Quality Chasm* report, the Committee on Quality Health Care in America for the IOM,(7) noted that patient- and family-centered care has the potential to improve quality and outcomes in health care while giving patients and families a voice in decisions.(8) The 2009 Affordable Care Act supports patient-centered care, and the act specifies that health care must redesign systems to provide patients an

experience framed as individualized, patient-centered, and relating to patient needs.(9) In 2010, The Joint Commission provided guidance to health care organizations on processes related to implementation of patient-centered care.(10)

The endorsement of patient- and family-centered care by the IOM, the Affordable Care Act, and The Joint Commission was based on four well-known models and/or institutes: the Planetree model, the Picker Institute, the Institute for Patient- and Family-Centered Care, and the Samueli Institute. Although each has their own unique characteristics, they all have similar missions.

### **Planetree Model**

In 1978, Angelica Thieriot founded Planetree and was motivated to change the environment following an inpatient stay.(11) The Planetree organization implements 10 beliefs that result in offering patients and families a unique experience. These beliefs include: 1) human interactions; 2) importance of family, friends, and social support; 3) patient education and community access to information; 4) healing environment; 5) nutritional and nurturing aspects of food; 6) art programs; 7) spirituality and diversity; 8) importance of touch; 9) integrative therapies; and 10) healthy communities.

These beliefs focus on the human interaction of care within a healing environment that emphasizes social support for the patients, families, and staff. Families are valued and are encouraged to be involved in the care through ready access to educational materials and information. Healing environments provide the comforts of home, with spaces for family gatherings for meetings and meals, meeting spiritual and/or relaxation needs. Music, arts, and crafts are commonly offered in these institutions, all of which have psychological benefits.

Advocates within Planetree organizations support integrative therapies such as yoga, acupuncture, and aromatherapy.

### **Picker Institute**

Harvey Picker founded The Picker Institute in 1986 because of the perception that health care was not sensitive to the needs or cares of patients. This institute advances patient-centered care using education and research. Its mission is to educate patients and health care organizations to facilitate changes necessary in providing a patient-centered approach. This mission is primarily carried out through the promotion and use of their survey tool, developed in 1991, used to measure patient-centeredness (12).

The eight Picker Institute Principles include: 1) respect for patients' values, preferences, and expressed needs; 2) coordination and integration of care; 3) information, communication, and education; 4) physical comfort; 5) emotional support; 6) involvement of family and friends; 7) transition and continuity; and 8) access to care.

The first principle values informing the patients and family about medical issues and encourages active participation in the decision-making process while respectfully honoring cultural differences. Patients and families share in the communication of clinical status, disease progression, and prognosis. They are considered valuable to the team responsible for the coordination and integration of clinical care. A Picker facility provides a musically aesthetic healing environment that provides emotional support for anxiety and fear related to the illness, prognosis, and/or financial hardships.

### **Institute of Patient- and Family-Centered Care**

The Institute of Patient- and Family-Centered Care was founded in 1992.(13) It provides leadership for patient- and family-centered care in all settings. The institute's mission is to

advance the education and understanding of patient- and family-centered care. It emphasizes dignity and respect, communication, participation, and collaboration with patient and families. Complete and unbiased communication with patients and family members by health care providers is promoted. Patients and family are encouraged to participate in care and decision making at any level (depending on their comfort), including active committee participation at various organizational levels.

### **Samueli Institute**

The Samueli Institute was established in 2001 with the goal to transform health worldwide through promoting research on health, healing, and wellness. The institute's mission is education and research.<sup>(14)</sup> The institute developed the Optimal Healing framework, which identifies both internal and external factors important in patient- and family-centered care. Internal factors include: 1) developing healing intentions; 2) experiencing personal wholeness; 3) cultivating healing relationships; and 4) practicing healthy lifestyles. External factors include: 1) applying collaborative medicine; 2) creating healing organizations; and 3) building healing spaces.

According to the Samueli Institute, these internal factors are operating at their potential when the mind, body, and spirit are synchronized. Using massage and or acupuncture means you are applying an internal factor: practicing a healthy lifestyle. When the external factors are operational, the organization will function at its full potential. The use of music in hallways or waiting rooms or customized to the needs of the patient and/or family is an example of an external factor: building healing spaces.

### **Music**

Music is a common theme among these models, institutes, and organizations promoting patient- and family-centered care. Evidence exists that music is essential to a healing environment and has an effect on the patient's personal healing experience.(1) Including music as part of a healing environment can be traced to the 1400s, More modern-day philosophies and standards of music therapy were established in the early 1900s by the National Society of Musical Therapeutics, the National Association for Music in Hospitals, and the National Foundation of Music Therapy.(2) In the United States, musicians would visit hospitalized soldiers during World War I and II. The music provided both physical and emotional benefits for the soldiers as they were recovering from the war and served as a positive diversion. (1)

### **Music and Noise**

Human physiologic processes are affected by music, but not everyone responds the same way to the same genre of music. When listening to music, a physical response is present as pressure waves from music causes a physical effect on the body.(15,16) The physical effect can be therapeutic or toxic.

Nationally, noise is a problem within health care organizations and can cause anxiety, stress, high blood pressure, and restlessness for patients. The World Health Organization established the standard for background noise at less than 35 decibels.(17) This standard was developed for patients within health systems to promote optimal rest within external environments. However, a standard for staff and visitors has not been well established.(18) Implementing music within organizational spaces heavily populated with staff and visitors can change the milieu of the external environment. However, making this change must be carefully planned to be sustainable. A model of change is useful in planning a transformation of this magnitude.

**Implementing Change**

Seventy-five percent of changes to organizations fail.(19) The complexity of the change often is minimized and the importance of consistent leadership and collaborative relationships are overlooked. Senior leadership must privately and publicly support the change.(20-22) Change is more frequently accepted when senior leaders promote processes, including establishing interdisciplinary teams, identifying champions, offering education, and providing regular communication. These processes are important to sustaining change.(23-25)

**Identification of Clinical Problem**

The patient advisory council affiliated with South San Francisco Medical Center, a Kaiser Permanente facility, was instrumental in facilitating the implementation of music within the health system. Implementation of music was a part of the journey toward patient- and family-centered care. The national risk management team associated with quality improvement processes welcomed the opportunity to pilot a project involving music.

**Purpose and aims:**

The purpose of this quality improvement project was to examine the effects of streaming music into the hallways of a medical center. The specific aims were:

- Aim 1: Collaboratively implement the music pilot in a micro-system.
- Aim 2: Establish an education program for implementation of music within the macro-system.
- Aim 3: Evaluate music both qualitatively and quantitatively.

**Methods****Design/Setting/Sample**

The design was a quality improvement project, which was implemented at South San Francisco Medical Center, a Kaiser Permanente facility. This facility offers a variety of adult medical surgical services. A convenience sample of 58 groups of adult staff and visitors were randomly interviewed after implementation of the music program. The two floors selected for the project were composed of units with medical, surgical, and transitional care patients.

### **Ethical Consideration**

Approval for this quality improvement project was obtained from the Scholarly Project Committee overseeing this project from Creighton University and Kaiser Permanente. Additional approval was obtained from the Creighton University and Kaiser Permanente executive management teams.

### **Background Procedures for Intervention**

In 2007, Kaiser Permanente recognized the importance of music and hired consultants to customize music for their brand. Three genres of music were chosen. The first type of music was *revitalize*, which is an upbeat music that creates a stress-reducing atmosphere. This genre of music was to be used in staff rooms, offices, and waiting rooms. The next type is *reassure*, a calming music that creates an optimistic atmosphere. This music was to be used while members were on hold for the telephone and in reception areas. The last genre of music was *soothe*, a type of music with less percussion and a slower tempo. This type of music was peaceful and was to be used in patient care areas.

### **Aim 1: Phase 1**

In 2012, the national risk management office of Kaiser Permanente convened a steering committee to discuss patient- and family-centered care. The steering committee was composed of a national manager in charge of patient- and family-centered care, nursing executives from the

California and Hawaii regions, and marketing employees. Meetings were held in July, August, and September 2012 focused on implementing music within the Kaiser Permanente system. This resulted in approval of this pilot project. In addition, feedback was solicited from the patient advisory council.

### **Aim 1: Phase II**

The coordinated interdisciplinary team was composed of senior executives, a member of the patient advisory council, the chief engineer, a sound specialist, and a project lead who was a Doctorate of Nursing Practice (DNP) student. The intervention was planned from December 2012 to January 2013.

### **Testing of the Sound System**

Prior to the pilot, decisions were made on the geographic zones to be utilized, the volume of the music, and the type of music and the time of day to introduce the music. In addition, the sound system and speakers were tested and balanced. The zones chosen were the medical, surgical, and transitional care units. The music volume was set at 60 decibels. The music type was the *reassure* genre, and the music played from 8:00 pm to 10:30 pm.

Following the test of the sound system, the team decided to keep the selected zones, decrease the volume of the music to the mean decibel level of the noise within the organization, change the music type to the *soothe* genre, and play the music from 8:15pm to 9:30pm.

### **Education and Music Implementation**

Prior to implementation of the project, managers and staff members received education about the program. The managers were provided an educational session. Staff were provided educational brochures that were placed in the break room. The educational session and brochures focused on the value of music in a patient-centered care environment.

The pilot was held on four nights during the first quarter of 2013. On the evening of each pilot, the project lead reviewed the survey questionnaire and met with the national risk management staff and a former patient who volunteered to collect data prior to the music being played.

### **Results**

While the music was playing, hospital staff and visitors were asked to participate by responding to the following questions.

1. On a scale of one to five, how valuable was the music, with one being not valuable and five being very valuable?
2. On a scale of one to five, would you recommend that the music continue at the medical center, with one being not valuable and five being very valuable?
3. How did the music make you feel?

Fifty-eight groups participated in one of the four-pilot sessions. In response to the first question, the mean score was 4.1 (see Figure 1). When asked whether they would recommend that the music continue at the medical center, the mean score was 4.5 (see Figure 2). A majority of the respondents said that the music made them feel soothed and relaxed. Two respondents said the music made them feel like “I’m not alone.”

### **Discussion**

This pilot affirmed music’s ability to decrease anxiety for staff and patient visitors in a hospital environment. The psychological effects of music can decrease anxiety and, over time, can cause a relaxation response.(2) Although music as part of the healing experience has a long history, conceptualizing music as part of a health systems’ patient experience within a patient-centered framework has yet to be standardized.

Going forward, health care organizations should consider music as an important component when implementing patient- and family-centered care. By educating health care professionals, monitoring noise levels, and ensuring that technology is available, music can become a valuable component of patient- and family-centered care environment. It can benefit staff, visitors, and patients.(18)

### **Limitations**

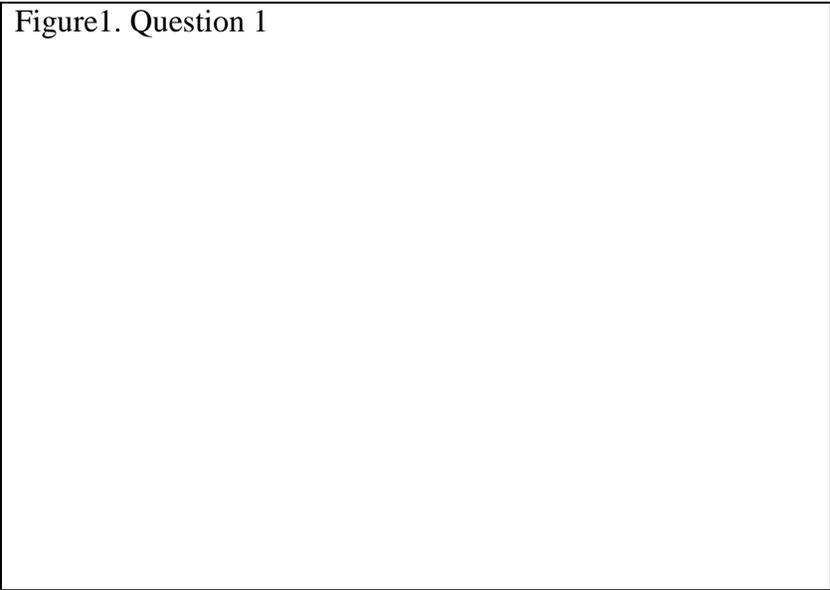
Playing music in health care facilities is not mandatory, so there can be competing priorities when implementing change. At the beginning of the patient-centered care journey, organizations often find conflict between the traditional model and determining which aspects of the patient-centered care model are important to implement.

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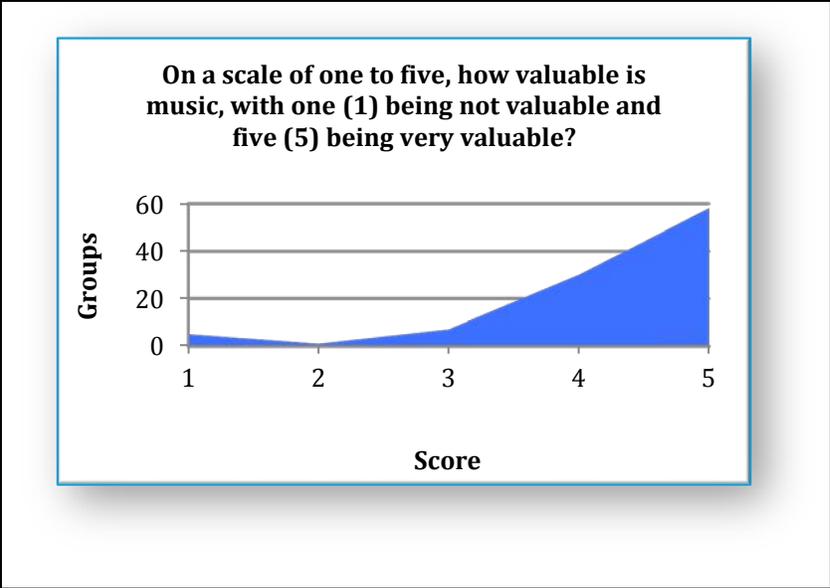




Figure 2. Question 2.

