CNE SERIES
MEDSURG NURSING

CNE Objectives and Evaluation Form appear on page 15.

The Effect of Music Therapy on Patients' Perception and Manifestation of Pain, Anxiety, And Patient Satisfaction

Terry Richards
Jennifer Johnson
Amy Sparks
Howard Emerson

An extensive review and synthesis of current research was completed to identify the clinical benefit of using music therapy in the hospital setting. It demonstrated that music therapy has the potential to improve the hospital experience of patients.

Music therapy has been an established medical practice since the 1950s, with degree programs offered by several universities (American Music Therapy Association, 2004). In addition, within the last 10 years three schools have been established to train and certify musicians to play therapeutic music at the bedside for patients in hospitals and other clinical institutions: The Music for Healing and Transition Program (Hillsdale, NY) (The Music for Healing and Transition Program, Inc., 2005), The International Harp Therapy Program (Mt. Laguna, CA) (International Harp Therapy Program, n.d.), and Chalice of Repose (Missoula, MT) (The Chalice of Repose Project, Inc., 2003). Graduates are certified music practitioners, harp therapy practitioners, and music thanatologists, respectively. While training emphasis varies among the schools, the common focus is offering music to patients in individualized therapy sessions. Because of its tonal quality and range, the Celtic harp is the instrument of choice in all three programs.

Bedside therapeutic music is an increasingly popular and respected modality, and West Virginia University Hospitals (WVUH) is one of the pioneer institutions offering this therapy as a service. WVUH utilizes a Certified Music Practitioner (CMP) to play harp music for patients and families. The potential benefits of a thera-

Terry Richards, BSN, RN, ONC, is a Clinical Preceptor, West Virginia University Hospitals, Morgantown, WV.

Jennifer Johnson, BSN, CNRN, is a Clinical Preceptor, West Virginia University Hospitals, Morgantown, WV.

Amy Sparks, MSN, RN, FNP-C, is a Clinical Track Instructor, West Virginia University School of Nursing, Morgantown, WV.

Howard Emerson, CMP, is a Certified Music Practitioner, West Virginia University Hospitals, Morgantown, WV.

Acknowledgments: The authors acknowledge the invaluable participation in the literature review process of the remaining Medical Surgical Research Utilization Team (MSRUT) members: Traci Ashcraft, BSN, RN,BC; Christine Daniels, MBA, BSN, RN; Victoria Gay, BSN, RN; Ella Grimm, BSN, RN; Rhonda Hamilton, BSN, RN; Michelle Harper, RN; Jackie Johnson, RN; Angelea Loretta, BSN, RN; Holly Mattingly, BSN, RN; Sharon Tylka, BSN, RN. The authors express gratitude to June Larrabee, PhD, RN, Professor at West Virginia University School of Nursing and Clinical Investigator at WVU Hospitals, for guidance in manuscript development. In addition, the authors wish to acknowledge the ongoing support of nurse leaders for the work of the MSRUT.

Note: The authors reported no actual or potential conflict of interest in relation to this continuing nursing education article.

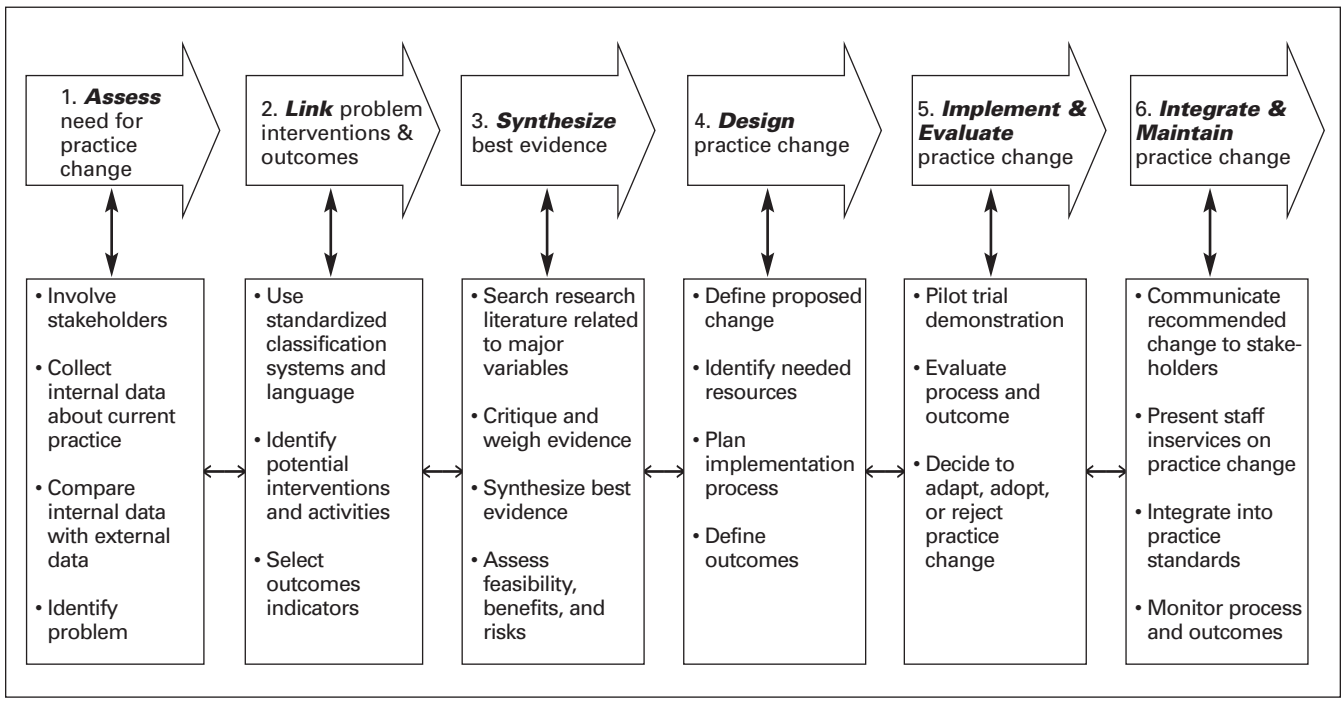
Figure 1.
Bedside Music Therapy

Using Celtic harp, Howard Emerson, CMP, provides therapeutic treatments to hospitalized patients at WVUH.

peutic music program came to the attention of WVUH staff and administration through the efforts of a harpist volunteering at the hospital in early 2001. As a result, research into the benefits of such a service was conducted and other facilities using therapeutic music were contacted. It was concluded that in addition to other benefits, the skills of a trained therapeutic musician would be helpful in providing patients a mechanism for coping with the impact of their situation. In late 2001, a CMP was hired. To date, 42 other hospitals utilize the services of a CMP (The Music for Healing and Transition Program, Inc., 2005).

Using Wiedenbach's nursing theory to guide practice, the nurse identifies actions to help the patient to cope (Meleis, 2005). *Help*, as defined by Ernestine Wiedenbach, is a deliberate action that enables individuals to overcome whatever hampers their ability to function (Meleis, 2005). Music therapy is used at WVUH as an adjunct to nursing practice, as an additional tool to help patients. The nurse and patient discuss this intervention and a mutual decision is made to involve the music therapist. Mutual decision making is an integral concept of the Wiedenbach Nursing Theory. At WVUH, the CMP works within the pastoral care department and receives referrals primarily from nurses, physicians, and chaplains. Occasionally the CMP will respond to

Figure 2.
A Model for Evidence-Based Practice Change



Source: Rosswurm & Larabee, 1999.

requests from family members or returning patients who had benefitted from music during prior hospitalizations. Consideration is always given to the patient's age, music preference, and medical condition. A physician's order is not required to provide this service.

Many types of hospitalized patients could benefit from therapeutic music. The patient who is experiencing a lengthy hospital stay and wishes to enjoy a break in the daily routine may find refuge in the music. Cancer patients undergoing painful, distressing procedures might employ music as a distraction (Kwekkeboom, 2003). The terminally ill patient and his or her family could find solace in music when only comfort measures are being provided at end of life. Freeman and colleagues (2006) found that a vigil conducted by a trained music thanatologist could provide an effective form of palliative care for dying patients. Evans (2002) suggested that music therapy become a routine component of care provided to people during their hospitalization (see Figure 1).

Recognizing that music therapy may be a viable approach to augmenting traditional treatments, the Medical-Surgical Research Utilization Team (MSRUT) at WVUH collaborated with the hospital's CMP to evaluate the current research related to the effect of music therapy on patients.

Method

The MSRUT utilized PubMed, Cochrane Library, CINAHL, and Ebsco Host electronic databases to identify articles on the topic of music as an intervention by focusing on pain, anxiety, and patient satisfaction as dependent variables. In addition to the variables chosen, the team focused on the hospital setting rather than a specific patient population. Lack of research in the hospital setting resulted in the inclusion of ten articles from 1991 to present. The literature search was completed in 2004. Since then, additional studies have been conducted on this topic. The articles were critiqued thoroughly by members of MSRUT as Step 3 of the Rosswurm-Larrabee model for evidence-based practice change (Rosswurm & Larrabee, 1999) (see Figure 2). The critiques included identification of research variables, settings, sample characteristics, tools, study design, limitations, findings, and quality of evidence. The articles included in the review were level three experimental designs that included clinical controlled trials. Nine articles investigated the impact of music therapy on patient perceptions of pain. The effect of music on anxiety levels was identified in six of the articles, and patient satisfaction was measured in three articles. The populations and settings varied, with a representative sample of patients from the emergency room, same-day surgery, colonoscopy suite, operating room, and postoperative areas. Articles were reviewed and summarized for content. Findings of the articles were placed in matrix form for clarity and ease of analysis (see Table 1).

Findings

The effect of music on pain. Perception of pain is a multifaceted phenomenon reflecting a person's physiological, psychosocial, cultural, and subjective being (Heiser, Chiles, Fudge, & Gray, 1997). In the hospital, a multitude of experiences can affect the perception of pain. Music as an intervention for pain perception was identified in nine articles from this literature review (see Table 1). Evidence from four studies (Good et al., 2001; Menegazzi, Paris, Kersteen, Flynn, & Trautman, 1991; Nilsson, Rawal, & Unosson, 2003; Zimmerman, Nieveen, Barnason, & Schmaderer, 1996) indicated that music therapy is significantly more effective in lowering pain than no intervention. These studies examined pain associated with laceration repair, coronary artery bypass, abdominal surgery, inguinal hernia, and varicose vein repair. In contrast, five studies (Broscious, 1999; Good, 1995; Heiser et al., 1997; Kwekkeboom, 2003; Tanabe, Thomas, Paice, Spiller, & Marcantonio, 2001) failed to show a significant difference in level of pain between the music group and control group. Possible explanations for the lack of consensus in findings about the efficacy of music therapy could be small sample size, primarily Caucasian subjects, low initial pain ratings, varied skill level of practitioners, and lack of a true control group. The body of evidence regarding diverse types of pain is insufficient to support specific music therapy for specific types of pain.

The effect of music on anxiety. *Anxiety* can be defined as a state of uneasiness, apprehension, or fear, resulting from the anticipation of a real or perceived threatening event or situation, often impairing physical and psychological functioning (Thomas, 2004). The mere thought of a needlestick creates anxiety for many people; hence, the suggestion of surgery or an invasive procedure may induce similar feelings. Music as an intervention for anxiety was investigated in six of the reviewed articles. Anxiety was reduced significantly in one study involving subjects undergoing colonoscopy (Smolen, Topp, & Singer, 2002). In addition, the music intervention group had a reduction in total procedure time and need for opiate administration. The remaining five studies (Good, 1995; Heiser et al., 1997; Kwekkeboom, 2003; Menegazzi et al., 1991; Nilsson et al., 2003) demonstrated no statistical significance in anxiety levels. A variety of patient populations were investigated, such as those with

Table 1.
Effect of Music Therapy on Pain, Anxiety, and Patient Satisfaction

Authors	Patient Population	Sample Size	Independent Variable	Tools	Dependent Variable (Results)			Additional Findings
					Pain	Anxiety	Patient Satisfaction	
Menegazzi et al. (1991)	Laceration repair in the emergency room	n=38 Music (19) No music (19)	Recorded music	Visual Analog Scale Spielberger State Trait Anxiety Inventory (STAI)	Significantly lower in the music group (p=<0.05)	NS	*	100% of subjects would recommend music.
Good (1995)	Abdominal surgery	n=84 Jaw relaxation (21) Music (21) Combination of jaw relaxation and music (21) Control (21)	Recorded music	Distress of Pain Scale Sensation of Pain Scale Spielberger State Trait Anxiety Inventory (STAI) Verbal Rating Scale (VRS) McGill Pain Questionnaire	NS	NS	*	89% reduction in sensation of pain and distress of pain; 92% of subjects would recommend music.
Zimmerman et al. (1996)	Coronary artery bypass graft (CABG)	n=96 Music (32) Music video (32) Rest (32)	Recorded music	Numeric Rating Scale	Significantly lower in the music group (p=<0.05)	*	*	
Broscious et al. (1999)	Chest-tube removal after open-heart surgery	n=156 White noise (36) Music (70) Control (50)	Recorded music	Verbal Analog Scale	NS	*	*	
Heiser et al. (1997)	Lumbar microdiscectomy	n=10 Music (5) Nonmusic (5)	Recorded music	Numeric Rating Scale	NS	NS	NS	100% rated music as beneficial and would use it again.
Tannabe et al. (2001)	Musculoskeletal trauma in the emergency department	n=76 Music (24) Ibuprofen (24) Control (28)	Recorded music	Verbal Analog Scale McGill Pain Questionnaire	NS	*	NS	84% satisfaction with the care; 96% would listen to music again.
Good et el. (2001)	Abdominal surgery	n=285 Jaw relaxation** Music** Combination of jaw relaxation and music** Control**	Recorded music		Decreased from day 1 to day 2 (p=<0.001)	*	*	
Smolen et al. (2002)	Colonoscopy	n=32 Music (16) No music (16)	Recorded music	Spielberger State Trait Anxiety Inventory (STAI)	*	Significant reduction (p=0.19	*	Decreased systolic blood pressure (p=0.02) Decreased diastolic blood pressure (p=0.006) Decreased heart rate (p=0.00) Less sedation administration Versed® (p=0.000) Decreased use of meperidine (p=0.000) Procedure time reduced to 6.25 minutes

Table 1. (continued)
Effect of Music Therapy on Pain, Anxiety, and Patient Satisfaction

Authors	Patient Population	Sample Size	Independent Variable	Tools	Dependent Variable (Results)			Additional Findings
					Pain	Anxiety	Patient Satisfaction	
Kwekkeboom (2003)	Cancer patients undergoing medical procedures	n=58 Music (24) Distraction (14) Control (20)	Recorded music	Spielberger State Trait Anxiety Inventory (STAI) Verbal Rating Scale (VRS)	NS	NS	*	Reduced opiate need and administration (p=<0.005)
Nilsson et al. (2003)	Inguinal hernia varicose vein	n=151 Postoperative music (51) Intra-operative music (51) Control (49)	Recorded music	Numeric Rating Scale	Lower pain scores at 1 hour (p=<0.01) and at 2 hours (p=<0.01)	NS	NS	

Notes:
NS = Not significant
* = Variable not investigated in study
** = Number of participants in each group not provided

laceration repair, abdominal surgery, lumbar microdiscectomy, inguinal hernia repair, varicose vein repair, and cancer patients undergoing procedures. Limitations, such as small sample size, researchers' identification of assigned groups, and subjects' prior experience with the procedure, could account for lack of consistency in findings. Lack of statistical significance, though, does not necessarily indicate lack of effect. Findings did demonstrate that patients enjoyed listening to music; the majority of patients rated music as beneficial, and they would not only listen to music again but also would recommend its use to others (Good, 1995; Heiser et al., 1997; Menegazzi et al., 1991). However, the evidence provided in these studies does not support music therapy for reduction of anxiety. It is important to note that all of the studies used recorded music, rather than live Celtic harp.

The effect of music on patient satisfaction. Satisfaction is linked to the relationship between the health care provider and the patient (Guadagnino, 2003). Health care facilities that strive to enhance the relationship with the patient will retain current customers and attract new patients. Patient satisfaction was a variable investigated in three randomized controlled trials examined in this review (Heiser et al., 1997; Nilsson et al., 2003; Tanabe et al., 2001). When intervention and control groups were compared, no statistical difference was found in patient satisfaction for individuals undergoing lumbar microdiscectomy, musculoskeletal trauma, inguinal hernia, or varicose vein repair with the use of the music intervention. Small sample size and lack of a standardized patient satisfaction measurement tool were limitations that could have affected study findings (Heiser et al., 1997; Nilsson et al., 2003; Tanabe et al., 2001). Clinical significance was demonstrated in one study (Tanabe et al., 2001), in which 84% of subjects reported being more satisfied with their overall care. Nonetheless, no determinations can be made as to the actual effect of music therapy on patient satisfaction based on these studies.

Implications

The potential for music to reduce anxiety, alleviate pain, and improve patient satisfaction may have an impact in today's health care environment. Although there is limited evidence to support strong implications for practice, the possibility exists that music can have a positive impact on patient care. Further research is required before strong implications can be reported. In several of the studies, patients did report enjoying the music, stated they would use it again, and would recommend its use to others (Good, 1995; Heiser et al., 1997; Menegazzi et al., 1991; Tanabe et al., 2001). These are suggestive findings as to the effectiveness of music therapy which nurses and nurse leaders may wish to explore.

Most medical-surgical patients experience postoperative pain, receive analgesics, and are expected to ambulate postoperatively. The traditional use of opi-

ates to control postoperative pain could be augmented by the use of music therapy. Smolen and colleagues (2002) demonstrated decreased administration of Versed® and meperidine during colonoscopy when music was utilized. Providing music as an intervention could decrease the need for opiates and thus decrease the negative side effects associated with their use (nausea, vomiting, constipation, urinary retention, confusion, drowsiness). Postoperative ambulation is an ongoing struggle for patients who have pain management problems. Failure to ambulate can lead to immobility-related complications, such as atelectasis, pneumonia, deep vein thrombosis, decreased gastrointestinal motility, and altered skin integrity. Another study (Good et al., 2001) found pain associated with postoperative ambulation was decreased significantly from day 1 to day 2 with the use of music therapy and jaw relaxation techniques. The use of music as an intervention should be investigated because it could promote and improve early ambulation, resulting in fewer complications, decreased length of stay, and better clinical outcomes for patients. The use of music in pain management is an opportunity for future research. Physiological outcome indicators, such as blood pressure, heart rate, and respiratory rate, could be investigated with regard to the clinical benefits of music therapy. Further research needs to investigate the effect of music therapy on opiate administration. Studies to differentiate the benefits of a music intervention between procedures associated with minor pain, such as laceration repair, and procedures that elicit more severe pain, such as chest tube removal, also would be of clinical benefit.

Research to determine correlations between music therapy and the anxiety experienced by patients would be beneficial in various areas of clinical practice. For example, the introduction of music therapy in conjunction with patient teaching may facilitate improved patient learning and retention. Anxiety can inhibit the ability to learn new information. Prior to providing patient education, the nurse could offer music as an option, asking the patient if he or she believes music would be helpful in reducing anxiety or improving the learning experience (Evans, 2002). The intervention would be discussed with the patient and a mutual decision would be made to implement the use of music, therefore increasing the likelihood of success (Meleis, 2005). Furthermore, determining the most appropriate time to initiate music therapy and identifying the specific clinical areas of practice that could benefit from its use would be of interest to health care providers.

Patient satisfaction is a fundamental issue for nurses, physicians, and health care facilities. The possible relationships between music and patient satisfaction are another area for additional research. An instrument designed to measure patient satisfaction with music therapy would be necessary for accurate evaluation of the intervention.

Patient satisfaction responses were collected at WVUH in 2002 to evaluate patients' responses to the therapeutic harp service. Two questions were asked and an opportunity for additional comments was provided to the patients. The survey was conducted by the hospital chaplains, and the following presentation was used:

Recently you had a visit from our hospital harpist, Howard Emerson. Would you please answer two questions about the value of listening to the music?

1. *On a scale of one to five, how valuable was the music to you, with one being not valuable at all, and five being very valuable?*
2. *Would you recommend the experience of harp music to someone else in your situation? Yes or no?*

Would you like to make any additional comments about your experience with the harpist?

Eighty-one patients voluntarily responded to this internal satisfaction survey. In response to the first question, "*How valuable was the music to you?*" 72 of the respondents (89%) gave a rating of 5 (very valuable). A rating of 4 (moderately valuable) was the response of eight patients (10%) and one patient gave a rating of 3 (neutral). The second question, "*Would you recommend the experience of harp music to someone else in your situation?*" received a recommendation of 96%, with 79 out of 81 responding "Yes." One patient replied "No," and one patient replied, "Not sure." A patient on the orthopedic unit commented, "It eased my pain. If he had played ten more, I would have fallen asleep — something I don't do much here." A pediatric patient reported, "It was nice, sweet, classical — it helped me feel happy when my Mom wasn't here." An oncology patient said, "All the other patients on the floor turned their TVs off. When he left, it was silent." Patients who experience the individualized therapeutic music sessions report decreased pain and anxiety. Lowering of blood pressure and heart rate also has been demonstrated in some cases. Patients are able to express emotion, reporting a sense of spiritual fulfillment and increased satisfaction. Families also benefit in being allowed "emotional release" and spiritual support. One family member shared, "She loved it so much, she requested a second session. She smiled and attempted to sing along. In her last hours, she had a smile on her face and was waving goodbye. We were amazed at her countenance and her spirit." The

data obtained from the internal survey, as well as patient testimonials and clinical observations, help to substantiate WVUH's ongoing support of therapeutic harp music for patients. The medical-surgical unit can be a chaotic environment at times. At WVUH, the majestic sounds of the harp provide a calming effect for the staff as well as the patients and families. All who are near may experience an atmosphere of peace and serenity. The use of live-versus-recorded music, as well as the impact that live music has on other patients and staff members who are within listening range, needs to be explored. In addition, individual music preferences and their comparative effects should be studied further. Research also needs to be conducted to investigate the cumulative effect of music, to determine if repeated exposures to music may be more effective than a single exposure (Broscious, 1999).

Notable gaps exist in the literature pertaining to the effectiveness of music therapy on patients' pain relief, anxiety reduction, and overall patient satisfaction. For example, only three (Good, 1995; Good et al., 2001; Zimmerman et al., 1996) of ten articles utilized medical-surgical inpatients when investigating the effect of music therapy on pain. The use of same-day surgery, emergency room, and diagnostic testing patients in the studies leaves a void in relation to the medical-surgical inpatient population. Without this type of patient in the research, generalization is more difficult. WVUH is involved currently in quantitative research investigating the impact of live therapeutic music on anxiety, pain, and well-being in patients on a medical-surgical unit.

Conclusion

Despite improvements in pharmacologic treatments, managing a patient's pain and anxiety in the acute care setting is an ongoing challenge, with great potential impact on patient satisfaction. A review of current literature concluded that music may be beneficial in reducing pain in a variety of situations, particularly during minimally invasive procedures. Reduced opiate administration, lowered anxiety levels, and shortened procedure time were demonstrated in patients undergoing colonoscopy. However, due to design limitations of the available research studies, generalizability to other medical-surgical areas is not possible.

A lack of substantive research involving the clinical benefits of music therapy is noted. Although the research is not able to support practice changes, music therapy can become a universal practice due to its low cost, ease of administration, minimal-to-no risk of harmful side effects, and potential to improve the hospital experience for patients. Findings did suggest that patients were more satisfied with their care when music therapy was utilized. The literature implies potential for enhanced patient satisfaction in areas such as the emergency department when music is used to decrease stress levels. This review, together with past internal satisfaction reports and an overall positive impression of the music therapy program, inspired the development and implementation of a research study by the WVU School of Nursing in conjunction with WVUH. It will evaluate the effectiveness of live therapeutic music in trauma patients on a medical-surgical unit. An increase in nursing referrals for therapeutic music has occurred as a result of the literature review and synthesis, and the active role taken by the MSRUT and associated staff members at WVUH. ■

References

American Music Therapy Association. (2004). *Music therapy makes a difference.* Retrieved March 22, 2005, from http://www.musictherapy.org

Broscious, S.K. (1999). Music: An intervention for pain during chest tube removal after open-heart surgery. *American Journal of Critical Care, 8*(6), 410-415.

Chalice of Repose Project, Inc., The (2003). *The voice of music-thanatology.* Retrieved March 22, 2005, from http://www.chaliceofrepose.org

Evans, D. (2002). The effectiveness of music as an intervention for hospital patients: A systematic review. *Journal of Advanced Nursing, 37*(1), 8-18.

Freeman, L., Caserta, M., Lund, D., Rossa, S., Dowdy, A., & Partenheimer, S. (2006). Music thanatology: Prescriptive harp music for the dying patient. *American Journal of Hospice & Palliative Medicine, 23*(4), 100-104.

Good, M. (1995). A comparison of the effects of jaw relaxation and music on postoperative pain. *Nursing Research, 44*(1), 52-57.

Good, M., Stanton-Hicks, M., Grass, J.A., Anderson, G.C., Lai, H.L., Roykulcharoen, V., et al. (2001). Relaxation and music to reduce postsurgical pain. *Journal of Advanced Nursing, 33*(2), 208-215.

Guadagnino, C. (2003). *Role of patient satisfaction.* Retrieved October 24, 2005, from http://www.physiciansnews.com/cover/1203.html

Heiser, R.M., Chiles, K., Fudge, M., & Gray, S.E. (1997). The use of music during the immediate postoperative recovery period. *AORN Journal, 65*(4), 777-778, 781-775.

International Harp Therapy Program. (n.d.). Retrieved March 22, 2005, from http://www.harprealm.com/contact.html

Kwekkeboom, K.L. (2003). Music versus distraction for procedural pain and anxiety in patients with cancer. *Oncology Nursing Forum, 30*(3), 433-440.

Meleis, A.I. (2005). *Theoretical nursing development and progress* (Rev. ed.). Philadelphia: Lippincott Williams & Wilkins.

Menegazzi, J.J., Paris, P.M., Kersteen, C.H., Flynn, B., & Trautman, D.E. (1991). A randomized, controlled trial of the use of music during laceration repair. *Annals of Emergency Medicine, 20*(4), 348-350.

Music for Healing and Transition Program, Inc., The (2005). *A national educational certification program preparing musicians to play live, therapeutic music at the bedside.* Retrieved March 22, 2005, from http://www.mhtp.org

Nilsson, U., Rawal, N., & Unosson, M. (2003). A comparison of intra-operative or postoperative exposure to music – a controlled trial of the effects on postoperative pain. *Anaesthesia, 58*(7), 699-703.

Rosswurm, M.A., & Larrabee, J.H. (1999). A model for change to evidence-based practice. *Image Journal of Nursing Scholarship, 31*(4), 317-322.

continued from page 13

Smolen, D., Topp, R., & Singer, L. (2002). The effect of self-selected music during colonoscopy on anxiety, heart rate, and blood pressure. *Applied Nursing Research, 15*(3), 126-136.

Tanabe, P., Thomas, R., Paice, J., Spiller, M., & Marcantonio, R. (2001). The effect of standard care, ibuprofen, and music on pain relief and patient satisfaction in adults with musculoskeletal trauma. *Journal of Emergency Nursing, 27*(2), 124-131.

Thomas, C.L. (Ed.). (2004). *Taber's cyclopedia medical dictionary*. Philadelphia: F.A. Davis Company.

Zimmerman, L., Nieveen, J., Barnason, S., & Schmaderer, M. (1996). The effects of music interventions on postoperative pain and sleep in coronary artery bypass graft (CABG) patients. *Scholarly Inquiry for Nursing Practice, 10*(2), 153-170.

Suggested Readings

Greer, S. (2003). *The effects of music on pain perception*. Retrieved March 22, 2005, from http://hubel.sfasu.edu/courseinfo/SL03/music_therapy2.htm

Halstead, T.M., & Roscoe, L.S. (2002). Restoring the spirit at the end of life: Music as an intervention for oncology nurses. *Clinical Journal of Oncology Nursing, 6*(6), 332-336.

From AMSN

continued from page 5

Other resources, such as fact sheets for patients and families, are available for some of the interventions. The Spanish translations of these fact sheets are currently available for deployment of rapid response teams, preventing ADEs (medication reconciliation), improving care for acute myocardial improvement, preventing surgical site infections, preventing central line infections, and preventing ventilator-associate pneumonia.

Whether your hospital is participating in the *5 Million Lives Campaign* or not, it is important to know what interventions are recommended to reduce the incidence of medical harm. Consider accessing the IHI Web site for helpful information that will be continually updated. ■

Reference

Institute for Healthcare Improvement (IHI). (2006). *Protecting 5 million lives from harm.* Retrieved January 16, 2007, from http://www.ihi.org/IHI/Programs/Campaign/