

Perioperative Audiotapes: Audio Rx for Surgical Patients

By Linda Rodgers, C.S.W.

Have you ever heard surgery described as a thoroughly delightful experience? So enjoyable that you'll look forward to repeating it as often as you can? Yeah, right! Neither have I.

All surgery is stressful and raises universal feelings of anxiety in patients of all ages. For many, it takes only one traumatic experience to produce lasting anxiety easily triggered by a subsequent need for surgery. On a global scale, we still don't know how to reduce harmful effects of anxiety and stress exacerbated by the surgical time frame. Nor do we really understand how best to protect patients from hearing damaging conversation and noise before, during and after surgery. We do know that psychological preparation for surgery enhances postoperative recovery, yet hospitals cannot afford the time or staff to work with patients preoperatively. Although it is well documented that hearing is the last sense to go (auditory pathways are not effected by anesthesia and hearing remains intact during surgery), surgeons and other medical professionals have largely ignored research findings. They have not yet seriously addressed the prevention of auditory perception under anesthesia, and with it, the traumatic recall for surgical events that follows when memory persists or remains buried in the unconscious.

Nothing will ever take the place of another human being offering warmth, support and comfort, but when direct contact is not available to surgical patients, perioperative audiotapes heard through earphones are a simple and cost-effective tool to help patients manage the surgical time frame more comfortably. Consider the following laundry list of commonly recognized problems confronting surgical patients.

Preoperative anxiety — so common that it's termed anticipatory anxiety — can start the moment we're told we need surgery, and is likely to include many of the following: fear of the unknown, of anesthesia and death, mutilation and pain. Patients are at their most vulnerable just prior to surgery, waiting in the holding area outside the operating room

where there is a final feeling of loss of control in an unfamiliar environment which is staffed by strangers. For many there are additional feelings of isolation and helplessness...and mounting anxiety.

Auditory perception during surgery under general anesthesia is only one of the problems. Consider the plight of patients who are conscious during surgery under local or regional anesthesia. Example: orthopedic surgery requiring drills, reamers, oscillating saws and other noisy equipment used in the average operating room such as monitoring devices and alarms, ventilators, suckers, pumps, pagers, intercoms and telephones, together with the clanging of metal bowls and instruments. (The just audible rustle of leaves measures 10 decibels; a very quiet whisper, 20 decibels; a sucker in use, 75-80 decibels and a stainless steel bowl falling onto a tile floor, 108 decibels.) Is this restful or what? Olfactory sense remains intact for patients who are conscious, and they can smell their own flesh being cauterized. Normal operating room conversation and

and other medications, to difficulty seeing and speaking, extreme sensitivity to light and sound, and discomfort related to the surgery itself and unpleasant post-operative procedures. While anxiety continues to mount...and mount.

Now consider the same pre-, intra-, post-operative scenes re-played. This time the patient equipped with tapes, walkman and earphones; each tape giving simple messages of information, reassurance and suggestions against a background of music designed to soothe and relax the listener. The pre-op tape acknowledges the presence of anxiety as patients - both at home and later in the hospital - wait for surgery to start. i.e. "The tape that you are listening to was made especially for patients to hear before they have surgery...this is a particularly difficult time for everyone, and so this tape was made to help you feel as comfortable as you can while you wait..." An intra-op tape prevents patients from being exposed to noise and conversation in the operating room, yet allows OR staff complete freedom to discuss anything they like without danger of being heard, and a post-op tape acknowledges discomforts inherent in early recovery, with specific suggestions to help patients manage this stressful period.

Based on my experiences as a cardiothoracic social worker at Mount Sinai Medical Center in Manhattan, on a review of the literature

and on interviews with surgeons and anesthesiologists, I tailored my scripts to patients having general anesthesia or local/regional anesthesia. On the advice of a breast surgeon (who was also head of the Physicians' Orchestra), I wrote a one size fits all script for each surgical time frame, with the specific goal of preventing (or at least reducing) perioperative anxiety and stress. I also tried to avoid raising anxiety. While some patients want to know everything in detail, others panic at the word 'needle'. I tried to limit information and

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banter can be overheard as threatening or confusing, and while responses obviously vary from patient to patient, many report a growing sense of vulnerability ...and rising anxiety.

For patients in recovery from surgery, the postanesthesia care unit can feel like a waking nightmare, particularly in large metropolitan hospitals where the pace is frantic and contact with staff limited to medical procedures. There is rarely time for reassuring emotional support, and patients experience everything from disorientation from surgery, anesthesia

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to keep it simple. No jargon. No theory. The timing of information is another important consideration, optimally given well in advance of hospitalization so that questions can be raised and answered leisurely rather than in the pressured time period preceding surgery when patients are least able to understand and assimilate threatening material.

Based on a musical background and training as a classical pianist and composer, I researched the choices of music for patients to hear perioperatively. In the process I learned about something called ANXIOLYTIC MUSIC (pronounced ank-see-o-lit-ic) which simply means music, or musical sounds, designed to reduce anxiety. Anxiolytic music treats sound softly and gently. There are no abrupt shifts in volume and nothing to startle the listener. Sound moves consistently, flowing smoothly, enveloping and sedating by avoiding traditional forms of music we have learned to anticipate. Anxiolytic music is best understood broken down into two categories. The first deals with familiar stuff, material so well known that we tend to overlook it. Familiar music evokes memories and associations different for each of us. The same Sinatra ballad that warms my nostalgic heart may remind you of a romance turned sour, and even the same Brahms symphony, exhilarating on Tuesday, may provoke aching sadness on Wednesday. It's hard to predict how any of us will respond to music that we know and since surgical patients are uncommonly vulnerable, it suggests a need for caution in selecting music for them to hear.

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Note: I should add that when patients express a musical preference, naturally it should be respected.

The second category deals with the structure of music - all the other stuff that we hear without tuning in completely - such as melody, harmony, rhythm, in-

strumentation and sound. Melodies are structured to create a beginning, a middle and an end. When we know the melody, we not only know where it's going, we know how it's going to get there. Try singing the following round out loud: "Row, row, row your boat gently down the stream, Merrily, merrily, merrily, merrily, Life is..." When you deliberately cut yourself off from singing "...but a dream", you're really rocking the melodic/lyrical boat! It's unsettling, not to be able to complete the phrase. Anticipating the melody's progression and then waiting for the melodic line to end creates ex-

pected tension: both mind and body held suspended until the melody ends. However, if we want surgical patients to relax, music without melody may be the most restful and comfortable way to listen. Harmony, similar to melody, is used principally to stimulate tension and sustain interest, so when we want surgical patients to relax, we'll give them simple, uncomplicated clear sounds to hear. Rhythm, with its primal connection to heart sounds in the uterus, is something we've all known and will never lose. The beat goes on in our own pulse. Anything above a normal heart rate of 72 energizes (marching band or aerobic fitness music) and below the rate of 72 tends to slow us down. Irregular beats are comparable to arrhythmia and usually used to produce a jarring effect. And so like music

without melody and distinct harmony, an absence of rhythm with controlling beats allows us freedom to set our own individually rhythmic clock as we listen. Common sense suggests a choice of instruments resonating in mid-range. Recorders, piccolos and any high-pitched instrument will soon begin to feel like an assault on your head, while bassoons and timpani tend to vibrate uncomfortably in the low-end zone of the body. For surgical patients, some of the most soothing sounds include strings and

woodwinds in mid-range (violins, cellos, oboes) in addition to piano and xylophone. Although mellifluous and lyrical, I avoided using the harp out of concern that it may conjure up the wrong message for surgical patients.

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In summary, anxiolytic music avoids songs and familiar music that can trigger harmful memories and associations. It avoids melody, stimulating harmony, and rhythm that serve to arouse the listener. Instruments are chosen for their gentle and tranquilizing effects. Anxiolytic music is an especially user-friendly sound package for surgical patients. It is a uniquely calming and non-pharmaceutical form of audio analgesia designed to reduce anxiety and stress. Patients seem to like it.

But that doesn't mean perioperative audiotapes are being used routinely by patients, much less accepted by the established medical community. Hospitals and doctors are reluctant to approve new health interventions without first documenting statistically significant proof of their efficacy. Despite ongoing research and compelling data indicating broad benefits to patients using mind body interventions, hospital and managed care systems remain both indifferent to, as well as ignorant of, the literature. In their defense, and given the crisis in healthcare today, it's understandable that implementing perioperative audiotapes is not high on the priority list of the medical establishment. Although there are impressive numbers of healthcare professionals working within medical institutions to mount well-designed studies to document the psychological, medical and financial benefits of surgical audiotapes, progress is painfully slow. And in the meantime...patients are waiting...

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children's songs sung close to his ear as his wife looked on in astonishment. It remains a mystery how and why music pierced through the depth of his coma, singing him back from the silence.

Music speaks to us in ways that the heart and soul understand, working its wonders when all else fails. "Frequently the non-responsive respond; the belligerent cooperate; the guarded open up; the hopeless find renewed meaning." (Lane: Oncology Nurses Forum) This special healing occurs in both the patient

and the caregiver. "The profound meaning of music and its essential aim is to promote a communication, a union of man with his fellow man and with the Supreme Being." (Stravinsky)

Rima Joy Starr, a Certified Music Therapist, is a classically trained singer with a background in opera and musical theatre. She holds a Masters Degree in Music Therapy from New York University and received advanced training at Israel's Rubin Academy of Music and at the Institute for Expressive

Psychoanalysis in New York City. Ms. Starr currently holds the position of Music Therapist at the Jacob Perlow Hospice, Beth Israel Medical Center, where she works with dying patients and their families. She is also a nationally known public speaker, lecturing and presenting training workshops for caregivers, both professional and non-professional.

[For more information on Music Therapy or on starting such a program, please contact Rima Starr at (212) 420-2409]

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"Perhaps common sense will rule when doctors, hospitals, and HMOs are pressured by 'consumers'—the patients—who intuitively believe they need support and preparation for surgery, and who vigorously assert that need." (Dreher 1998) When patients call

for the walkman. Battery-operated walkmans cannot generate "electrical sparks" in the operating room because they are powered by batteries and not by electricity! (I checked this out with the engineering departments of several large Manhattan teaching hospitals.) The most

you will need is some cooperation in changing tapes during the different stages of surgery, and someone in the OR will definitely be able to handle that for you. Using perioperative audiotapes is not exactly rocket science. How to get them accepted and into use by every surgical patient who wants them, is another matter.

Some patients are more skilled than others in negotiating their rights as consumers. But for those who are easily intimidated by their doctor or ill prepared to navigate a complex medical/surgical system, health advocacy professionals are natural allies. Patients, acting as consumers, need to know how best to advocate for themselves, and healthcare advocates are uniquely qualified to help advance the concept of using perioperative audiotapes by informing and educating both the patients and members of the medical community.

Linda Rodgers, C.S.W., is president of the Audio Prescriptives Foundation, established

as an education and research foundation producing perioperative audiotapes. A recognized composer and classically trained musician, she also sits on the boards of the Juilliard Council, the Hastings Center, the New York Hospital-Cornell Medical Center, the Alcoholism Council of Greater New York, the Brookdale Institute on Aging and the Citizens' Committee for Children of New York.

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to order my surgical audiotapes, I routinely advise them to tell their surgeon or anesthesiologist, in advance of being admitted to the hospital, about their intention of listening to the tapes before, during and after surgery. If I hear a plaintive, "Suppose they say, No, what'll I tell them?" I swing into my best Patient-as-Consumer Advocate position and try to cover basic material such as: Notifying your doctors in advance gives them time to decide where to place the walkman during your surgery, and how to handle your earphones if they need to speak to you. Sterility is not a problem but you might want to put your walkman into a zip lock bag as protec-



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