Music Soothes the Mind and Body

Sandra Tunajek, CRNA, DNP

Almost everyone has been affected by the economic uncertainty that has engulfed the country during the past years. The uneasiness has touched all of us in different ways. Certainly, nurse anesthetists and other healthcare professionals are not exempt.

The way we cope with the individual stressors associated with both economic threats and the subsequent professional workplace issues is different also. However, a growing number of the professions are recognizing that stressors of all types, including economic stress, may affect the well-being of providers and also influence patient care. Many are developing initiatives that encourage mechanisms for positive coping and sustained physical and mental health of providers.

The 17th-century English dramatist William Congreve once famously said “Music hath charms to sooth a savage breast,” and a growing number of individuals, both patients and providers, are taking it to heart.

Music is produced from sounds that create certain vibrations, that are picked up and amplified by the human ear. These waves are then carried by the sensory nerves going to the middle of the brain and then redistributed throughout the brain to distinguish the characteristics of music like pitch, tone, frequency, rhythm, timbre, and melody. Different networks of neurons are activated, depending on whether a person is listening to music or playing an instrument, and whether or not the music involves lyrics. Further, the brain’s multiple processing of music can make it difficult to predict the particular effects of any piece of music on any individual.

Music does not exist just as a type of sound. It is a type of sound that people respond to in a certain way. It is powerful at the individual level because it can induce multiple responses—physiological, movement, mood, emotional, cognitive, and behavioral. Few other stimuli have effects on such a wide range of human functions. It is amazing how there are just certain songs that, no matter how bad you feel, can put a smile on your face. Or, in other cases, help you relax and focus on the music and not what is bothering you at that moment.

The therapeutic power of music has long been recognized and has been a part of medicine for thousands of years. The ancient Greeks believed that music could heal both the body and the soul, and Native Americans use singing and chanting as an important part of their healing rituals. From the beginning, mothers of all cultures have sung to their babies to soothe, calm, and comfort them.

Physicists discovered a phenomenon several hundred years ago: Basically, when two bodies in motion are in close proximity, they will soon synchronize with each other. In the human body, the process is the body’s heart rate and breathing synchronizing to the pulse of strong rhythmic music. Studies have also shown that when you experience an emotion while listening to music, ancient reward circuits flood the brain with a chemical designed to make you feel good.

Today, music is used along with conventional treatment to help to reduce pain and relieve chemotherapy-induced nausea and vomiting. It is also known to lower heart rate, blood pressure, and breathing rate. Several studies have found that music can relieve stress and provide an overall sense of well-being. Additionally, the increase in the release of dopamine in our brains stimulates these circuits and brings us pleasure. This is similar to the same pleasure that drug users experience when they feel “high” after using illicit drugs.

Music can be effective in conjunction with other interventions in promoting relaxation, alleviating anxiety and pain in medicine and dentistry, and promoting well-being through the production of particular endorphins. Its therapeutic uses have been explored extensively with particular groups of patients, the elderly, those with brain damage, and those with persistent pain. It has also been used to promote appropriate behavior in vulnerable groups and enhance the quality of life of those who cannot be helped medically.

Music Therapy

The ability to experience and react to music is deeply embedded in the biology of the nervous system. There has been considerable recent interest in the cardiovascular, respiratory, and neurophysiological effects of listening to music, including the brain areas involved. Of particular interest are those areas which appear to be similar to those involved in arousal. Newer studies reveal several findings that suggest that music is sensed and processed at a subconscious level, closely mirrored by autonomic cardiovascular responses. These results have clear implications for the practice of music therapy and may help advance our understanding of how music can transmit emotions and how music could be used to induce or enhance specific cardiovascular responses in various fields, from physical training to recovery from stroke.

The more formal approach to music therapy began in World War II, when U.S. Veterans Administration hospitals began to use music to help treat soldiers suffering from shell shock. Music therapy was found to be effective in enhancing pain relief, comfort, relaxation, mood, confidence, resilience, and well-being. In 1944, Michigan State University established the first music therapy degree program and
today more than seventy colleges and universities offer accredited programs.5

Today, music therapists are credentialed and work in many different settings using music as therapy for many different patient populations with a wide variety of health concerns. Research has shown that music can benefit ailments like dementia, Parkinson’s and Alzheimer’s disease, dyslexia, heart conditions, blood pressure, and respiratory problems. Singing can help people with speech impediments improve their articulation, rhythm, and breath control.

Many meditative sessions are successful when music or chanting is used. Physicians the world over are rediscovering how this simple technique can work wonders in today’s stressed and strained life. They are using music in birthing rooms, during surgery, and as a complement to traditional medicine.

Surgeons are just as receptive to the calming benefits of music as anyone else, perhaps even more so, as several studies have demonstrated improved task performance among staff in the operating room when a CD or radio is playing in the background. Although not all findings agree, it is strongly suggested that it is better for people to listen to music they are comfortable with and know well and like.8

A recent literature review indicates that music intervention alleviates postoperative pain. The findings can be related to the power of music to enhance distraction and well-being, as a psychological support, and to increase relaxation.5

Music and the Mind

One primary factor that determines our taste in music is related to our previous associations what that particular piece of music. Patriotic music is associated with some of our strongest and deepest positive feelings; feelings of loyalty, pride, devotion, and gratitude. Impressed upon us from childhood, it is the music of parades, athletic functions, and holidays where crowds of people gather to celebrate.

Music stirs our hearts and our emotions in a very positive way and captures how we feel about love and friends, partings, finding new joys, and feeling great sadness. It can make us feel giddy and alive, laugh and cry.

The increased availability of music seems to encourage us to use music to influence our moods, reduce stress, alleviate boredom during tedious tasks, and tailor an environment appropriate for the things that enhance the quality of our lives. Whether is it the rhythm of exercise, the beat of the dance, the words to a love song, a meditative chant, a soaring aria, or a mother’s melody.

Music has the power to soothe, to relieve the stresses of everyday life. The music each of us personally chooses depends on the kind of associations it evokes and what works or has worked for us and for others.

References