GUEST EDITORIAL

Integrating Nonpharmacological, Adjunctive Interventions Into Critical Care Practice: A Means to Humanize Care?

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A disturbing editorial[1] appeared in a medical journal a few years ago describing the grotesque and inhumane scenarios in critical care units. Patients receiving mechanical ventilation were lying deeply sedated and paralyzed, overmedicated with various pharmacological agents. Sedative and paralytic agents are staples in critical care units and, when used appropriately, can be helpful in reducing airway pressure and promoting adequate gas exchange in patients receiving mechanical ventilation. These agents must be used judiciously, however, to avoid complications. Sedative agents can cause numerous adverse effects such as hypotension, muscle weakness, delayed weaning from mechanical ventilation, and increased risk for ventilator-associated nosocomial pneumonia.[2-6] Sedation does not have to be the first choice in attempts to allay a patient's anxiety and distress associated with mechanical ventilatory support. Routine, automatic sedation of patients receiving mechanical ventilation is inappropriate; overuse of sedation can be detrimental to patients,[7] and heavy dosages of medications do not necessarily improve outcomes and may even cause long-term harm, such as depression and paranoid delusions.[8]

A recent editorial[9(p137)] in this journal focused on the need for more humane, compassionate care in the intensive care unit (ICU) and posed the question, "What is needed for the critically ill patients we care for in the hi-tech environment of the ICU?" The answer is nonpharmacological, adjunctive interventions. By integrating these interventions into practice, we can introduce compassion and humanity into our care.[9]

What are nonpharmacological, adjunctive interventions? They are interventions that are "complements to or supplements to" medications and other treatments already in use in critical care units. Others have referred to these interventions as complementary/alternative medicine. I deliberately chose not to discuss the use of complementary/alternative interventions because I find "adjunctive" and "nonpharmacological" more applicable to the critical care environment, which is so focused on the use of drugs and various high-tech interventions. Likewise, these nonpharmacological interventions are just that—they are not drugs and thus are not intended to be used "in place of medication" but rather "in addition to" standard critical care treatments.

Nonpharmacological, adjunctive interventions have an appropriate place in the nursing care of critically ill patients. Nurses providing care to critically ill patients can offer adjunctive interventions that complement care and do not cause adverse effects. If nonpharmacological interventions caused muscle weakness, increased nosocomial infection, and lung injury (as do sedatives), use of the interventions would not be allowed in any patient, and they would be barred from any practice setting.

What are nonpharmacological, adjunctive interventions? Music, massage, imagery, progressive muscle relaxation, biofeedback, and therapeutic touch are a few examples. These are interventions that nurses can implement into practice or for which nurses can make appropriate referrals. Some of these nonpharmacological interventions, like massage, may have been taught and practiced in basic nursing education programs and may already be an integral part of a nursing repertoire.

One might think that these "new interventions" are recently discovered. On the contrary, several have been in existence since the origins of nursing. Nursing's pioneering founder, Florence Nightingale, espoused a holistic framework of practice, wherein the nurse was responsible for placing the patient in the best position possible to allow the body to heal.[10] Nightingale and

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her nurses provided exemplary care to soldiers during the Crimean War without the luxury of antibiotics and high-tech equipment. Despite these limitations, mortality rates were greatly reduced as a result of expert, compassionate nursing care. Many of the early nursing practices focused on the environment, including good nutrition, water, cleanliness, and adequate rest. Nightingale even recognized the power of appropriate music to aid in healing the sick.[10]

Scientific knowledge about the efficacy and effectiveness of many nonpharmacological interventions is growing. Music is an intervention that has received much attention recently. One of the first reports on music in critical care came from Helen Bonny, a music therapist. Dr. Bonny used music during her own recovery from coronary artery bypass surgery. After her recovery, she persuaded a hospital to pilot a music-listening program in the coronary care unit. Results from her early pilot work indicated that patients were less anxious and more comfortable after listening to classical music.[11] Nurse researchers have continued to conduct and publish studies[12-14] on the effects of music, predominantly in critically ill patients with cardiac-related medical diagnoses, and the results indicate that patients who listened to music were less anxious and more relaxed than patients who did not. In one study,[15] patients who had had an acute myocardial infarction and who listened to investigator-selected classical music had reduced heart rate, respiratory rate, and myocardial oxygen demand, with significant increases in high-frequency heart rate variability. The effectiveness of music in reducing anxiety and promoting relaxation in patients receiving mechanical ventilatory support has been tested in limited trials.[16-18]

Although massage may be a lost "nursing art," it has long been a fundamental aspect of nursing practice. Hayes and Cox[19] recently published a study on the benefits of a simple 5-minute foot massage for critically ill patients, half of whom were receiving mechanical ventilatory support. Results showed that the patients' heart rate, respiratory rate, and blood pressure decreased during the massage. This simple type of massage could be taught to family members who might be interested in providing a comforting intervention for a critically ill loved one.

Animal-assisted or pet-assisted therapy is another nonpharmacological, adjunctive intervention that can be implemented in critical care units to increase compassion and humanity. Such therapy can have health benefits and can promote quality of life.[20] Many persons have valued pets or enjoy animals. The major argument against animal-assisted therapy or visitation in the ICU is the problem of hygiene; animals that are part of structured visitation programs require a thorough veterinary examination and a clean bill of health before entering any facility.

Patients' likes or dislikes must be determined before a nonpharmacological, adjunctive intervention is implemented. A nurse can accomplish this task by talking with patients and their families about their use of adjunctive interventions at home, such as massage, music, or pets. If a nurse is interested in using music to promote relaxation but does not know where to begin, an assessment guide is available.[21] Likewise, a nurse can make a referral when an expert practitioner is needed.

Importantly, "one size does not fit all" with nonpharmacological, adjunctive interventions. For example, a patient must like listening to music in order for music to be effective in promoting relaxation. In addition, providing music that the patient prefers is essential, because listening to certain pieces or types of music can provoke intense, emotional responses. Likewise, not all patients like to have a back rub or foot massage or would welcome an animal as a visitor when they are ill.

Additional resources are available for nurses interested in integrating nonpharmacological, adjunctive interventions into practice. An entire issue of *AACN Clinical Issues* (February 2000, volume 11, number 1) was devoted to complementary and alternative therapies. Textbooks have been written by nurses who lead the research agenda in this area.[22] In addition, the National Center for Complementary and Alternative Medicine at the National Institutes of Health has a Web site that contains information on various adjunctive interventions (http://nccam.nih.gov). By integrating nonpharmacological, adjunctive interventions into practice, nurses can create a compassionate, humane, and healing environment in critical care units.

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