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## **Alternative and Complementary Modalities for Managing Stress and Anxiety**

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# Alternative and Complementary Modalities for Managing Stress and Anxiety

Lynn Keegan, RN, PhD, HNC

**S**tress is endemic in our society. More than two thirds of office visits to physicians are for stress-related illnesses, such as heart disease, anxiety disorders, high blood pressure, coronary artery disease, cancer, respiratory disorders, accidental injuries, cirrhosis of the liver, and attempted suicide, all of which are leading causes of death in the United States. In addition to causing illness, stress can aggravate other conditions such as multiple sclerosis, diabetes, herpes, mental illness, alcoholism, drug abuse, and family discord and violence. Stress is not

always adverse, however; managed correctly, the problems caused by stress can be minimized. Realistically, stress is a normal aspect of life that must be endured at some level. Additionally, a stress response can be helpful in many ways, motivating persons to work or study or increasing their alertness while taking a test or giving a talk. The problem occurs when stress exceeds a productive level and interferes with the ability to think, remember, and focus on tasks. Stress that is ineffectively managed and remains too high for too long can contribute to multiple illnesses.

Americans are using alternative and complementary therapies, often for stress-related complaints. The results of a nationwide survey of 1539 adults published in the *New England Journal of Medicine* indicated that 1 in 3 Americans uses therapies considered unconventional.<sup>1</sup> This study was the landmark investigation that opened the floodgates to exploring and understanding these new therapies and how they work. The most

frequently used therapies mentioned in the survey were relaxation techniques, chiropractic, massage therapy, imagery, spiritual healing, lifestyle diets, herbal medicine, mega-vitamin therapy, self-help groups, energy healing, biofeedback, hypnosis, homeopathy, acupuncture, folk remedies, exercise, and prayer. A 1997 follow-up national survey<sup>2</sup> by the same team found that use of at least 1 of 16 alternative therapies during the preceding year increased from 33.8% in 1990 to 42.1% in 1997. Overall, use of alternative therapies increased by 25%, total visits to alternative medicine practitioners increased by 47%, and expenditures for alternative goods and services increased by 45% (exclusive of inflation). Results from the follow-up study also indicated that ailing persons most often seek nonmainstream treatments for chronic conditions, such as back problems, anxiety, depression, and headaches. In 1990, an estimated 3 in 10 Americans used at least one alternative therapy; in

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1997, the rate was 4 in 10 Americans. Of additional interest, the increased use does not appear to be linked to any particular sociodemographic group.<sup>2</sup> Another researcher<sup>3</sup> found that compared with nonusers, the majority of users of alternative medicine were more educated and reported poorer health status. They used the alternative therapies not so much as a result of being dissatisfied with conventional medicine, but largely because they found that these healthcare alternatives were more congruent with their own values, beliefs, and philosophical orientations toward health and life.<sup>3</sup> Indeed, many acute care nurses are becoming aware of ways to incorporate complementary modalities to combat the effects of stress.

**Q: What exactly is stress and what causes it?**

The term stress refers to a heightened physical or mental state produced by a change in the internal or external environment. In humans, physical stress is caused by injuries or illnesses and psychological stress by real, perceived, or anticipated threats. Whether stress arises from a cause perceived by sense organs that relay the danger to the brain or from mental actions such as worry or fear, the course of events can be the same.

**Q: What is the relationship between stress and the body's hormonal system?**

When an event such as hospitalization for a patient or environmental work conditions for a staff member is perceived as threatening by the higher cortical centers, signals are sent to the motor cortex and hypothalamus. Several hormones are released from the pituitary and adrenal glands, res-

ulting in a number of physiological manifestations that can produce further harm to already compromised systems.

**Q: What are some of the symptoms or manifestations of stress?**

Stress shows itself in 3 general areas: physical, social, and psychological. Physical signs of stress include

- fatigue and exhaustion,
- headaches or migraines,
- neck and back pains or stiffness,
- gastrointestinal problems (nausea, diarrhea, constipation, or colitis),
- chest pains or palpitations,
- vulnerability to colds and flu (weakened immune system), and
- sleep disturbances.

Social manifestations of stress include family conflicts, job tensions, and change in sexual energy. Psychological signs of stress are 3-fold (Table 1). Any patient or staff member with subjective or objective signs of stress is a candidate for one or more stress-reduction therapies.

**Q: How do you define alternative and complementary therapies?**

An alternative therapy is one that is used instead of a conventional or mainstream therapy. For example, acupuncture is an alternative therapy. A complementary therapy may be an alternative therapy, but becomes complementary when used in con-

junction with conventional therapy. It helps to potentiate the effect of the conventional therapy. For example, massage, which can stand alone as an alternative therapy, can also be used in conjunction with conventional regimens for a variety of problems.

**Q: What are some of the specific alternative and complementary therapies that you find helpful to counteract stress?**

Many different therapies that everyone can enjoy are available. See Table 2 for a brief description of the most widely used, evidence-based therapies; for more information, see *Holistic Nursing: A Handbook for Practice*.<sup>4</sup>

**Q: What is the research that validates use of these therapies?**

All of these modalities have research results to back them up. That is why the therapies in Table 2 are so popular. Let's take a look at a couple of them individually.

**Aquatherapy**

Low back pain is one of the most common chronic conditions. In a study<sup>5</sup> with a random sample of 50 patients with low-back pain who received spa therapy and 52 who received standard ambulatory care, the findings for the 2 groups were significantly different. Compared with

**Table 1** Psychological manifestations of stress

Emotional symptoms	Intellectual symptoms	Behavioral symptoms
Depression	Forgetfulness	Mood swings
Anxiety or frustration	Slower thinking	Absenteeism
Decreased job satisfaction	Day dreaming	Difficulty completing tasks
Apathy or boredom	Decreased concentration	Possible substance abuse

**Table 2** Brief description of stress-buster complementary therapies

Therapy	Description
Aquatherapy	Use of some form of water to augment healing. Water may be used internally or externally in the form of ice, liquid, or vapor. You can partake of waters at a spa during rehabilitation and for general health maintenance and prevention. Warm baths or hot-tub therapy can reduce stress.
Aromatherapy	Use of essential oils to stimulate bodily responses via the sense of smell. These essential oils are commonly used in aromatherapy: citrus, lavender, peppermint, and rosemary.
Energy therapies	Practitioners and recipients adhere to the belief that the human body is surrounded by an energy field. Through the noninvasive manipulation of this field, energy is shifted and altered to produce a positive change.
Humor	Humor has been recognized since antiquity for its healing power. It is important to note that different people respond in different ways to humor so it is important to personalize this therapy.
Imagery	Imagery is a nonverbal, noninvasive intervention that can be implemented by patients alone or with guidance. Imagery uses the internal experiences of memories, dreams, fantasies, and visions to serve as the bridge for connecting body, mind, and spirit. Guided imagery plus relaxation is being used with increasing frequency to help people improve their performance and control their responses to stressful situations.
Massage	Massage is one of numerous physical touch interventions designed to reduce stress, alleviate anxiety, promote circulation, and generally stimulate a state of well-being.
Music	Music is nonverbal communication and has been used in rituals of celebration, funerals, and ordinary transitions of daily life. It involves passive relaxation combined with listening to soothing, relaxing music for the purpose of changing behavior, physiological responses, and emotions; it affects physiological responses through mind modulation.
Relaxation	Relaxation is a generic term for a variety of techniques designed specifically to reduce both physiological and psychological stress. Progressive muscle relaxation involves a series of clenching and relaxing steps designed to relax both the body and mind.

the patients who did not have spa therapy, patients who had the therapy had a significant improvement in spin mobility and in functional scores and a reduction in the daily duration of pain. Assessment of the long-term effects 9 months after therapy showed continued reduction in pain and drug consumption and improvement in spine mobility among the patients who had spa therapy.<sup>5</sup>

Another study<sup>6</sup> consisted of 25 randomly selected patients in a hospital setting who had pain from fibromyalgia. Twelve patients had hydrogalvanic baths, and 13 had

Jacobson relaxation training. Different dimensions of pain were measured at the beginning and the end of therapy. Patients receiving bath therapy had a significantly greater decrease in pain intensity from breakfast to lunch than did patients who received the Jacobson relaxation therapy.<sup>6</sup> Numerous other studies are detailed in the book *Healing Waters*.<sup>7</sup>

### Aromatherapy

In a study<sup>8</sup> of 122 patients in an intensive care unit, 3 therapies were compared for their effects on increas-

ing the quality of sensory input that patients receive and reducing patients' levels of stress and anxiety. The key findings were that patients who had aromatherapy reported significantly greater improvement in their mood and perceived levels of anxiety. They also felt less anxious and more positive immediately after the therapy, although this effect was not sustained or cumulative.<sup>8</sup> When pilot studies on aromatherapy that combined use of essential oils of rose and lavender with touching were done at Columbia Presbyterian Medical Center, the heart variation monitor showed parasympathetic peaks as a subject's feet were stroked with diluted essential oil. Sometimes just thinking about an aroma or an odor can be as powerful as smelling the actual aroma or odor itself.<sup>9</sup>

Aromas have measurable effects on persons' feelings. Torii et al<sup>10</sup> report on the psychologically stimulating effect of jasmine. Manley<sup>11</sup> reports on both the psychologically stimulating effect of lemon, lemon-grass, peppermint, and basil and the relaxing effects of bergamot, chamomile, and sandalwood. Other aromas found to be relaxing are rose and lavender.<sup>12</sup> Sweet orange essential oil was effective in both induction of anesthesia and recovery time from anesthesia in children.<sup>13</sup>

These 2 therapies, along with several others, are explored fully in the AACN Protocols for Practice. If you are unfamiliar with these and other complementary therapies, take the opportunity to explore them personally. When you are comfortable with using them yourself, it is easier to introduce them to others.

Critical care nursing is more than just meeting the physiological

needs of patients. Helping patients and staff members alike to cope with the multiple stressors in the acute care environment is an integral part of nursing. Learning to recognize the manifestations of stress is the first step; the next is adding knowledge and skills about the emerging alternative and complementary therapies in order to cope and prevent the adverse effects of stress.

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