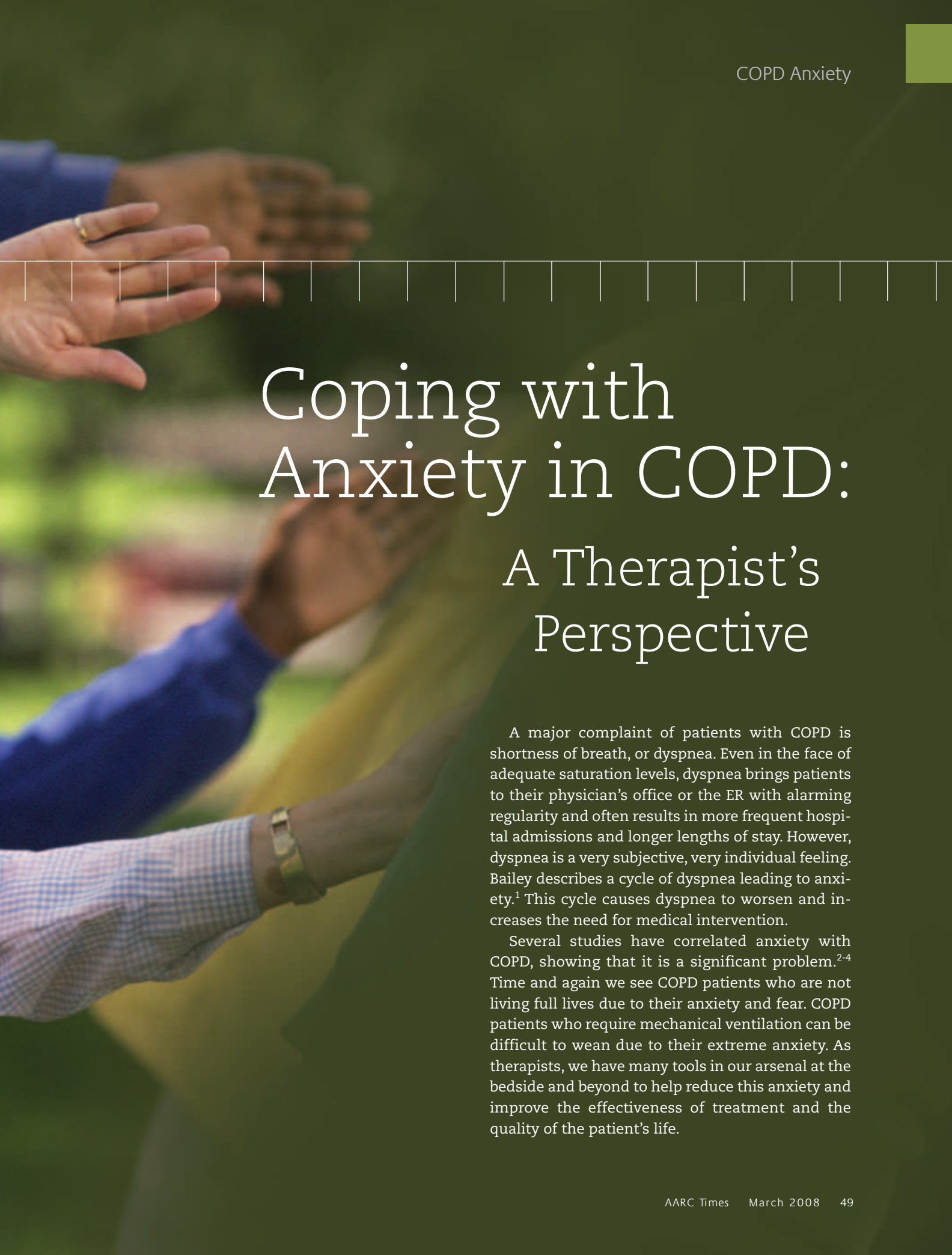

Coping with Anxiety in COPD:

A Therapist's Perspective

A major complaint of patients with COPD is shortness of breath, or dyspnea. Even in the face of adequate saturation levels, dyspnea brings patients to their physician's office or the ER with alarming regularity and often results in more frequent hospital admissions and longer lengths of stay. However, dyspnea is a very subjective, very individual feeling. Bailey describes a cycle of dyspnea leading to anxiety.[1] This cycle causes dyspnea to worsen and increases the need for medical intervention.

Several studies have correlated anxiety with COPD, showing that it is a significant problem.[2-4] Time and again we see COPD patients who are not living full lives due to their anxiety and fear. COPD patients who require mechanical ventilation can be difficult to wean due to their extreme anxiety. As therapists, we have many tools in our arsenal at the bedside and beyond to help reduce this anxiety and improve the effectiveness of treatment and the quality of the patient's life.

Figure 1.

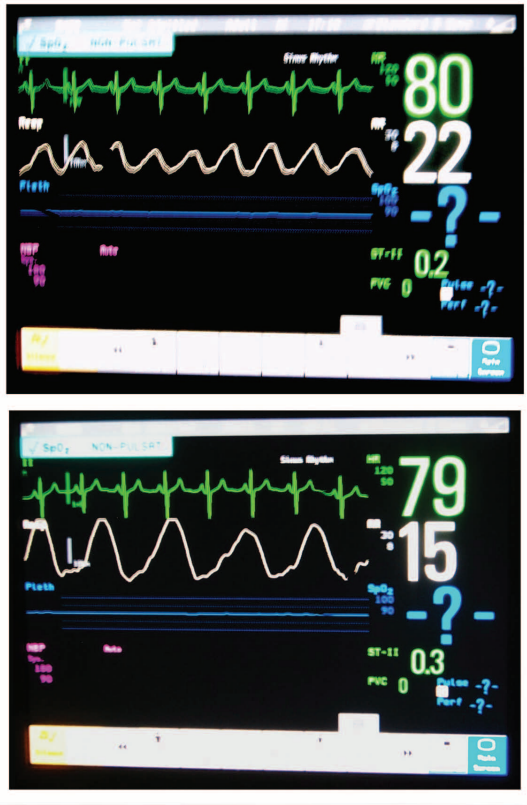

Figure 2.

Breathing retraining

COPD patients are frequently the patients in the medical-surgical unit or ICU who repeatedly utilize their call bells or shout out for attention. Most of us who have worked with them understand that they are anxious and afraid. Respiratory therapists (and some nurses) have been told during training to breathe through a straw to simulate what their COPD patients are experiencing. Most of us do this for a couple of breaths and stop, saying we are glad that we don't have to do this for real. It gives us some understanding of the difficulty faced by our patients. However, if we continue to breathe through the straw, we quickly discover that it is much easier if we relax and breathe slow and easy. This is the tough part for patients who are anxious and short of breath. They tend to breathe fast, and this makes the effort much harder, only adding to their anxiety. Common anti-anxiety medications such as benzodiazepines are not always used due to their potential for addiction and for the possibility of depressing respiration (a no-no in severe COPD patients). Pursed lip breathing and diaphragmatic breathing can make a great impact but do require much time and patience to teach and reinforce.

Figure 1. Amplitude and rate during normal breathing.

Figure 2. Amplitude and rate using diaphragmatic breathing techniques.

All too often, RTs are so enmeshed in performing routine treatments that they can forget, or are too busy, to do basic breathing retraining (e.g., pursed lip breathing and diaphragmatic breathing exercises). These simple techniques not only help patients breathe more effectively but also provide tools they can use to help control anxiety. It is not difficult to see that the time taken would be time well spent in helping our patients cope with their anxiety and shortness of breath.

Relaxation training

Relaxation training is also an underutilized tool for helping COPD patients cope with their disease. Studies have shown that progressive muscle relaxation decreases anxiety and depression in COPD patients.[5] The progressive muscle relaxation technique calls for the patient to tense his muscles and then relax them. For example, have the patient raise his shoulders as high as possible, feeling the tension in them, and then drop the shoulders and feel the relaxation in the shoulders and arms. Used in conjunction with diaphragmatic and pursed lip breathing (diaphragmatic inhale when lifting the shoulders and pursed lip exhale while dropping them), this technique helps the patient recognize his muscles are tense and allows them to relax. This is far superior to the usual ER practice of leaning toward the patient who is anxious and short of breath and screaming RELAX! And as we all know, relaxed muscles use less oxygen and will help reduce the oxygen need for the patient in crisis.

Biofeedback techniques

Biofeedback techniques vary widely and involve many different types of feedback, such as heart rate and/or pulse oximetry. These techniques can be helpful

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Depression and Anxiety in COPD: Prevalent But Treatable

Results from the National Emphysema Treatment Trial (NETT) tell the story regarding the role depression plays in COPD. According to Charles F. Emery, PhD, professor of psychology and director of the cardiopulmonary behavioral medicine program at Ohio State University in Columbus, OH, patients in the medical management arm of the study were significantly more likely to die over three years if they had been diagnosed with clinically relevant depression at baseline.

"How depressed patients are when they walk in the door has an impact on mortality," noted the psychologist during a lecture on "Management of Anxiety and Depression in COPD," presented at the AARC International Respiratory Congress last December. Depression and anxiety are both markedly more prevalent in the COPD population. Dr. Emery cited a lifetime incidence of well over 40% for anxiety and about 40% for depression. That compares to 5–10% and 8–20%, respectively, for the general population.

Fortunately, both anxiety and depression respond to treatment, even in people with severe COPD. But many patients continue to suffer needlessly because clinicians fail to identify the problem. Overcoming that barrier starts with assessment, said Dr. Emery. Self-assessment instruments such as the Beck Anxiety and Depression Inventories and other self-assessment tools are the best way to get started. These quick and easy scales provide the clinician with a clear picture of how symptoms are affecting patients and can usually be administered in minutes.

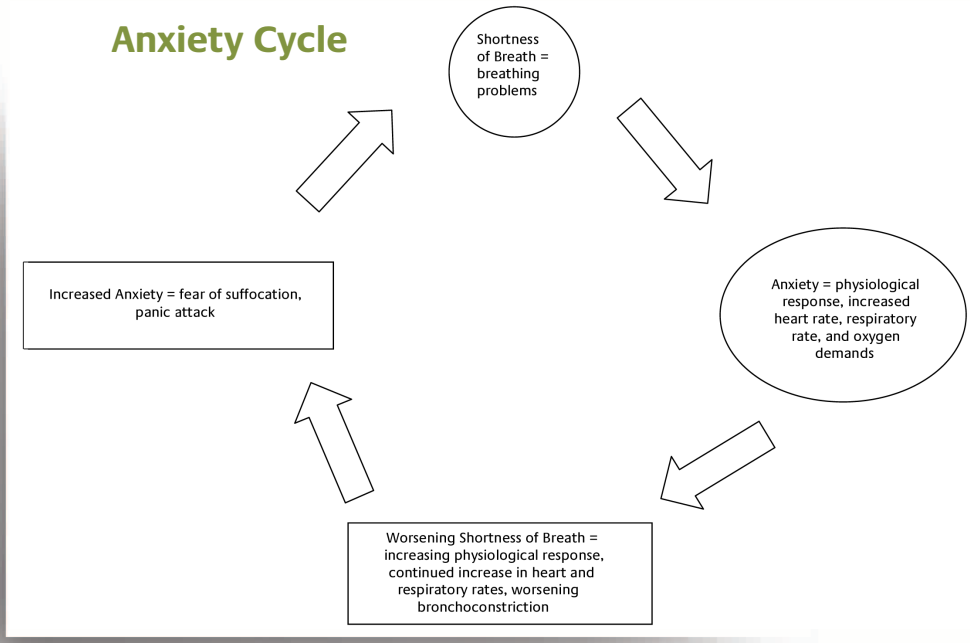
He also emphasized the importance of understanding that depression and anxiety have both biological and behavioral components. In the case of anxiety, the models range from the hyperventilation model and CO_2 hypersensitivity model to the cognitive behavioral model. In depression, chronic moderate hypoxia is associated with impaired neurotransmitter function (serotonin in particular); and pro-inflammatory cytokines are elevated in both lung disease and depression.

Pharmacologic approaches to treatment are often successful, although he said many antidepressants slow down the respiratory system and are not indicated for COPD patients. At least one study has shown depressed COPD patients have a 34% lower odds of adequate duration of therapy in the first three months of treatment when compared to people with heart disease, diabetes, and other chronic conditions as well. "Some studies showed reduced symptoms, but you are always balancing benefits against side effects," said the psychologist, "especially respiratory side effects." While bupropion has the advantage of treating both nicotine addiction and depression, he noted his drug of choice in these patients would be sertraline (a selective serotonin reuptake inhibitor or SSRI), which is not only one of the most widely studied antidepressants but one that also has some effect on reducing dyspnea via the central respiratory control.

Drug-free measures, however, may be just as effective in treating anxiety and depression in COPD, and is safer for patients. Dr. Emery cited numerous trials during his lecture suggesting a role for breathing retraining and relaxation techniques such as progressive muscle relaxation. Patients also benefit from controlled exposure to stressful situations, where they learn how to confront and overcome their breathlessness. Cognitive restructuring can help as well, by teaching patients to recognize and cope with misperceptions about their bodily functioning and realize they can do more than they ever thought they could. Any type of structured activity or social engagement is a plus too, as is interpersonal therapy aimed at helping patients resolve conflicts with the important people in their lives. Exercise, however, remains the number one treatment, with studies showing both immediate and ongoing benefits. Dr. Emery cited several trials indicating patients with both anxiety and depression at baseline who continued to exercise following pulmonary rehabilitation maintained the gains they achieved during the formal program.

In fact, pulmonary rehabilitation is the factor that connects the dots between all of these treatments for depression and anxiety in COPD. "Rehab is a good place to normalize the experience," said the psychologist. "Patients find that they are pleasantly surprised in pulmonary rehab because they never knew others were experiencing what they were experiencing." ■

Pursed lip breathing and diaphragmatic breathing exercises not only help patients breathe more effectively but also provide tools they can use to help control anxiety.



in increasing 6-minute walk distances, improving quality of life, and showing some benefit in improving anxiety levels.[6]

My own venture into biofeedback involved a patient who was being ventilated. We felt she was capable of weaning, but she was too anxious to successfully do so. I taught the patient diaphragmatic breathing techniques. Then during trials off the ventilator, I had the patient work on the diaphragmatic breathing using the heart/respiratory monitor. The patient was positioned to see the monitor and was shown the difference in amplitude and rate between her normal breathing (Figure 1) and the diaphragmatic breathing techniques (Figure 2). The weaning trials continued with the biofeedback of the respiratory monitor, and the patient was successfully weaned. Post extubation, diaphragmatic exercises were continued and pursed lip breathing exercises added. These types of biofeedback techniques involving routine equipment can help improve outcomes and quality of life, largely through the reduction of anxiety.

Shared success

It is hard to imagine a respiratory therapist who does not believe that pulmonary rehabilitation is a valuable therapeutic intervention for patients with COPD. In addition to physical improvements (e.g., improved 6-minute walk distance), pulmonary rehabilitation can also be very effective at reducing anxiety and depression. This can improve the patient's quality of life and reduce the number of inpatient hospital stays.[7-9] Pulmonary rehabilitation techniques vary and can utilize biofeedback as well as a specific component of psychotherapy designed to improve depression and anxiety levels in the participants.

One aspect that should not be overlooked, however, is the use of a "success story." This can best be accomplished by having a former patient who is doing well come into the rehabilitation department to tell patients how important the program is and how much it helps improve functionality and quality of life. During my time running a pulmonary rehab program, I utilized one such patient and found that the current patients responded very well to him and his "success story." He was consistently cited as one of the best parts of the program on exit surveys. By relating his success, he was able to improve compliance and reduce anxiety over the course of the program, thus allowing patients to receive maximum benefit from the rehabilitation.

It's all about the therapy

COPD patients are expensive for hospitals due to their extended lengths of stay. Given the limited reimbursement available under Medicare for these patients, this can be a major problem. Anxiety in COPD patients can complicate, and even increase, the length of stay.[10]

It certainly makes sense for respiratory therapists to work with these patients to reduce their anxiety and give them the tools they need to cope with their disease and

anxiety while they are still in the hospital. Using respiratory care protocols to handle nebulizer treatments and metered-dose inhaler therapy can help eliminate unnecessary treatments and free up therapists to work with patients who might otherwise become a burden on the system due to their extended lengths of stay. The respiratory therapist's ability to understand the needs of COPD patients and work with them on developing valuable coping skills should provide an impetus for hospitals to find a way to ensure that RTs have the time to do *therapy* and not just nebulizer treatments. ■

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