Relaxation Technique to Ease Dyspnea: A Tool for Oncology Nurses

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Mr. B, a 68-year-old man with a sevenyear history of lung cancer in remission, was admitted to the oncology unit for increasing dyspnea and extent of disease workup. He reported nonspecific symptoms that included shortness of breath on exertion and sometimes without exertion, causing him to stop participating in some of his activities, difficulty sleeping, and a lack of appetite. He also was worried about the cancer coming back. "Waiting and not knowing," he said, was very stressful. Mr. B's physician ordered supplemental oxygen at the rate of 5 L by nasal canulla and scheduled diagnostic imaging examinations, laboratory tests, and a possible bronchoscopy.

The morning after admission, Mr. B experienced significantly increased dyspnea. Because he was so short of breath he had postponed going to the bathroom as long as he possibly could and called for his nurse as he was leaving the bathroom. He was very apprehensive about his shortness of breath and appeared to be using a great deal of effort to breathe, telling his nurse "I can't catch my breath." To help ease Mr. B's breathing, the nurse had him sit upright in the bedside chair and asked him to relax and breathe normally. However, Mr. B's high level of anxiety, caused by his difficulty breathing and his fears about a possible lung cancer recurrence, made following instructions challenging. His entire body was tense, and he was expending needed energy by leaning forward, grasping the arms of the chair. Being told by the nurse to relax and breathe deeply had the opposite effect; Mr. B. became even more anxious and dyspneic.

One of the resources available to the nursing staff in the hospital was a stress-

management nurse available to work with patients and families. Noticing that the nurse was on the unit, Mr. B's oncology nurse described his situation and asked the stress-management nurse to visit Mr. B to see if stress reduction techniques might help improve his breathlessness.

Etiology

Dyspnea is a subjective sensation of breathing difficulty. It reflects patients' reactions to the feeling of not being able to get enough air (Matthews, 2005). Risk factors are multiple and related to disease, treatment, and lifestyle events (Merck Manuals Online Medical Library, 2007) (see Figure 1). The frequency of dyspnea in patients with cancer varies depending on the setting and extent of disease. The National Cancer Institute's ([NCI], 2007) review of the literature noted a study that reported 49% of a general cancer population experienced breathlessness and 20% rated it as moderate to severe. Patients with advanced cancer experience this symptom more frequently and intensely than patients with limited disease.

Studies have demonstrated that no direct relationship exists between dyspnea and the degree of impairment in lung function. Instead, the experience and intensity of dyspnea is influenced by patients' behavioral styles and emotional states. Breathing is influenced by behavioral control mechanisms in the

cortical and subcortical centers in the brain, and anxiety, anger, and depression may lead to increased ventilatory effort and dyspnea. Patients who generally are independent and adaptable can tolerate ventilatory loads with relatively few symptoms of dyspnea, while others who are more dependent and anxious may experience severe dyspnea with relatively small increases in ventilatory impedance (American Thoracic Society, 1999).

Assessment

No general agreement exists on what constitutes the best instrument for assessing dyspnea. The multidimensional nature of dyspnea must be considered to obtain an accurate assessment. The evaluation of patients with dyspnea begins with a thorough history of the symptom. Symptom onset and quality, precipitating and relieving events, and responses to medications should be reviewed. Measuring oxygen saturation can determine if patients are hypoxic. Physical findings may include tachypnea, use of accessory muscles with breathing, retraction of intercostal spaces, flaring of nostrils, clubbing of digits caused by chronic hypoxemia, cyanosis, pallor, confusion, restlessness, and difficulty concentrating (Matthews, 2005). Diagnostic tests may include chest imaging, computed tomography, complete blood counts, and oxygen saturation at rest and with exercise.

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