Stressors Associated with Dyspnea in Childhood: Patients’ Insights and a Case Report

Ran D. Anbar
State University of New York Upstate Medical University

Objective: To highlight the concept that stress can be associated with dyspnea in children.

Methods: A chart review identified 22 patients (age range, 9-17 years) referred to a pediatric pulmonologist, who were offered instruction in self-hypnosis for treatment of dyspnea that persisted despite medical therapy. Patients were offered the opportunity to use hypnosis to gain insight into the causes of their dyspnea.

Results: The dyspnea resolved in 18 of the 22 patients within 1 month of instruction in self-hypnosis for relaxation and symptom reduction. Eight of the 22 patients (age range, 11-16 years) chose to use hypnosis for insight. Using automatic word processing, they explained that their dyspnea was associated with stressful situations, or that it reduced the chances of having to experience an uncomfortable situation. For example, a girl with dyspnea resulting from vocal cord dysfunction realized during hypnosis that she developed her symptom in order to prevent herself from talking about information that might cause discomfort were it disclosed. As soon as the patient decided that she could trust herself to handle the information appropriately, her symptom resolved.

Conclusions: Dyspnea may provide patients with a way of expressing their reactions to perceived or anticipated stress. Thus, stress reduction interventions may prove very helpful in resolving this symptom. However, in some cases gaining an insight into the potential cause of the dyspnea may increase the effectiveness of therapy.

Keywords: Dyspnea, hypnosis, Posttraumatic Stress Disorder, somatoform disorder

A somatoform disorder is defined by the presence of physical symptoms that suggest a physical disorder, which are not explained fully by the presence of a general medical condition, the direct effects of a substance, or another mental disorder (such as
malingering, factitious disorder, anxiety, or depression, American Psychiatric Association, 1994). Types of somatoform symptoms may be age dependent. Abdominal pain and headaches may be reported most frequently in late childhood and early adolescence, while complaints relating to limb pain, neurologic symptoms, insomnia, and fatigue tend to occur in late adolescence (Campo & Fritsch, 1994; Garber, Walker, & Zeman, 1991; Oster, 1972; Silber & Pao, 2003; Stefansson, Messina, & Meyerowitz, 1976).

Children with somatoform disorders often have family members who have similar physical symptoms, or live with families affected by conflict, bereavement, or trauma (Fritz, Fritsch, & Hagino, 1997; Garralda, 1996). It has been proposed that children’s somatization may protect their parents by distracting parents from their own issues (Mullins & Olson, 1990). Similarly, a somatic symptom may keep children’s psychological conflict out of their own awareness (American Psychiatric Association, 1994). Stress arising from parental pressure for the child to perform also has been implicated as a trigger for somatization (Greene & Walker, 1997; Silber & Pao, 2003). Finally, children who have been physically or sexually abused often present with somatic complaints (Fritz, et al., 1997; Garralda, 1996; Hunter, Kilstrom, & Noda, 1985; Livingston, Taylor, & Crawford, 1988).

As dyspnea can occur as a psychosomatic symptom (Anbar, 2001a), identification of associated stressors may allow for appropriate counseling. This report describes pediatric patients who were taught self-hypnosis in order to resolve their dyspnea. This approach was based on a study that demonstrated self-hypnosis was associated with resolution of chronic dyspnea that occurred in children with normal pulmonary function (Anbar, 2001a). Hypnosis-facilitated observations made by these patients help characterize the psychosocial dynamics that are associated with development of dyspnea in childhood.

Methods

A retrospective chart review identified patients referred to a pediatric pulmonologist from January 2000 through December 2002, who were offered instruction in self-hypnosis for treatment of recurrent dyspnea that persisted despite medical therapy. Dyspnea was defined as difficulty breathing or shortness of breath, at rest or with exertion.

Hypnosis was offered to the patients described in this report because they had normal pulmonary function at rest, were diagnosed with respiratory problems amenable to hypnotherapy (e.g., habit cough, hyperventilation, or vocal cord dysfunction; Anbar, 2002; Anbar & Hall, 2004), or reported emotional or situational triggers of their dyspnea (e.g., fear), or dyspnea that occurred only during physical competitions (as opposed to during practice).

Patients were taught self-hypnosis by the pulmonologist in a 15- to 45-minute session that included: (1) A description of hypnosis; (2) Demonstration of two or three induction techniques; (3) Employment of favorite place imagery and progressive relaxation while in hypnosis in order to achieve relaxation; and (4) Development of imagery intended to relieve the dyspnea (Anbar, 2001a). Patients were encouraged to practice their self-hypnosis techniques on a daily basis for at least 2 weeks, and on an as-needed basis thereafter. The hypnosis instruction was individualized and no
hypnotizability assessment was conducted. Patients who stated they were interested in developing insight into the cause of their dyspnea and liked to type, were offered instruction in automatic word processing (AWP; Anbar, 2001b). This instruction usually took place one or two weeks after the initial hypnosis session. Patients were instructed to begin typing once they “found” their subconscious during hypnosis within imagery of a relaxing place of their choice (Anbar, 2001b). Subconscious was defined as a part of their mind of which they are usually not aware. The patients were instructed that they might be unaware of some of what would be discussed (Anbar, 2001b).

During the interaction that lasted 30 to 90 minutes, the patients and the pulmonologist communicated by typing on individual keyboards connected to a single computer screen. Following the session, patients were allowed to read a copy of the typed interaction if they so desired.

Because this report describes a retrospective chart review without identification of patients, it was exempt from review by the SUNY Upstate Medical University Institutional Review Board. The name of the patient in the case report was changed to protect her privacy.

Results

The dyspnea resolved in 18 of 22 patients (age range, 9-17 years) within 1 month of instruction in self-hypnosis for relaxation and symptom reduction. Eight of these 22 patients wanted to gain insight into the cause of their dyspnea. Among these 8 patients, 2 were diagnosed with asthma, and 2 with vocal cord dysfunction. The remaining patients did not have a diagnosed cause of their dyspnea. Their average duration of dyspnea prior to presentation was 1.8 years (range, 10 days to 4 years). Table 1 lists their additional symptoms. The physical examinations of all but one of the patients showed no abnormalities. The remaining patient manifested persistent stridor,
which was documented by laryngoscopy to be attributable to vocal cord dysfunction. Six of the eight patients underwent pulmonary function testing at rest, and all of these were normal. The patient with persistent stridor did not undergo pulmonary function testing.

All 8 patients stated they were unaware of possible psychological triggers of their dyspnea, and chose to use AWP as a tool to gain insight. Their dyspnea resolved after the initial hypnosis instruction, but before AWP for 4 patients; during AWP for one; and a week after AWP for one. The dyspnea did not recur among any of these patients during follow-up of an average 1.6 years (range, 3 months to 3 years). The 2 patients with asthma reported their dyspnea improved before and after AWP, but did not resolve completely.

Only 2 of the 8 patients wanted to see the transcript of their AWP immediately after the session. Three others read their transcripts at a subsequent appointment.

During the hypnotic experience of AWP the patients reported various potential causes of their dyspnea, as summarized in Table 2. The 13-year-old who stated his dyspnea protected him from developing worse symptoms, reported that over the previous two years three of his grandparents died, his parents divorced, and a house fire prevented him from living at home for half a year. During that time, his 14-year-old brother became truant from school and began using narcotics.

### Table 2: Patients’ insights regarding the causes of dyspnea elicited during Automatic Word Processing

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>Gender</th>
<th>Trigger of Dyspnea</th>
<th>Explanations About the Dyspnea</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>M</td>
<td>Exercise</td>
<td>Expressed a reaction to father’s criticism of athletic performance.</td>
</tr>
<tr>
<td>13</td>
<td>M</td>
<td>Exercise</td>
<td>Provided protection from developing worse symptoms.</td>
</tr>
<tr>
<td>13</td>
<td>F</td>
<td>Sore throat</td>
<td>Prevented disclosure of uncomfortable information about stepfather.</td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>Enclosed spaces</td>
<td>Reflected fear of dying, after a near-drowning at 6 years of age.</td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>Exposure to allergens</td>
<td>Alerted patient regarding environment that triggered severe asthma in the past.</td>
</tr>
<tr>
<td>16</td>
<td>F</td>
<td>Exercise</td>
<td>Provided an excuse for not performing well during exercise.</td>
</tr>
<tr>
<td>16</td>
<td>M</td>
<td>Exercise</td>
<td>Allowed avoidance of peers at school, and provided time to think about break-up with girlfriend.</td>
</tr>
<tr>
<td>16</td>
<td>F</td>
<td>Exercise</td>
<td>Expressed dislike of extensive involvement in sports.</td>
</tr>
</tbody>
</table>
The following case demonstrates how development of insight appeared to be helpful for the patient who was uncomfortable because of her stepfather. The excerpt of the AWP session is presented verbatim (with typographical errors corrected).

Case Report

Jane, a 13-year-old, was in good health until she developed a sore throat associated with dyspnea, inspiratory stridor, coughing, and chest tightness. Also, she reported intermittent dizziness, headaches, and numbness and tingling of her extremities. Despite therapy with systemic steroids and nebulized bronchodilators, her symptoms persisted for ten days. A diagnosis of vocal cord dysfunction was confirmed by a laryngoscopic examination of her upper airway.

Her symptoms persisted despite employment of hypnotic imagery for general relaxation, as well as specific imagery to relax her vocal cords. She was encouraged to practice her hypnosis on a nightly basis, and told that with time her symptoms would improve. She was offered a referral for speech therapy, which is a widely used treatment for vocal cord dysfunction (Anbar & Hehir, 2000). However, she preferred to work with hypnosis.

A week later, because of persistent symptoms, a cranial magnetic resonance imaging (MRI) study was performed to exclude a brain abnormality. This study was normal.

On the same day as the MRI, she described a dream from the previous night during which she saw that her stepfather’s eyes were blood shot. She said she did not know what this dream meant, and that in “real life” his eyes often were blood shot, for an unknown reason. She agreed to learn how to use AWP to gain an understanding of her dream and whether there was a psychological reason for her breathing difficulties. (In this transcript excerpt, her stepfather was referred to as her “father”.)

Doctor: Jane wanted me to ask you about the meaning of the dream about her father with the blood shot eyes...

Jane: Her dad has a bad habit.

Doctor: Do you want to tell me about it?

Jane: If you promise not to tell her or her MOM.

Doctor: I absolutely promise that.

Jane: Ok.

Doctor: So tell me what needs to be told—

Jane: He smokes pot.

Doctor: What do you think about that?

Jane: I’m afraid to tell Jane because she might get scared for him.

Doctor: Would that be bad, for her to get scared for him?

Jane: Yes.
Doctor: Why?
Jane: Because then she might get too scared, then tell her mom. And her mom and dad fight already.

Doctor: So it would make matters worse?
Jane: Yes, much.

Doctor: And what does the breathing problem have to do with all of this?
Jane: I can’t let her talk about it.

Doctor: About what?
Jane: The stuff I just told you.

Doctor: Are you willing/able to let up on her breathing if she promises not to talk about what she’s not supposed to talk about?
Jane: Yes.

Doctor: Does that feel safe enough for you?
Jane: Yes.

Doctor: Have you fixed her breathing?
Jane: Yup.

When Jane typed “Yup,” her stridor resolved. At the conclusion of the AWP session, she stated that she did not recall what she had typed, and that she did not want to see a transcript of what had been discussed.

Jane was congratulated on her success, and was given a one week follow-up appointment. Four days later, Jane disclosed to her mother that her stepfather had been sexually abusing her for several years. At that time legal authorities became involved, and Jane was referred to a clinic that specializes in counseling victims of sexual abuse.

Jane’s breathing remained normal after her AWP session during three years of follow-up.

Discussion

The patients explained that their dyspnea arose in association with stressful situations, or that it reduced the chances of having to experience an uncomfortable situation. It is unclear whether the dyspnea and associated symptoms arose in order to protect the patients, and/or if the patients found meaning and an advantage in the dyspnea once it occurred, which may have promoted its perpetuation.

Also, it is unclear whether the explanations provided by the patients regarding their symptoms represented true insights as opposed to rationalizations in response to prompting by the pulmonologist. For example, Jane reported that her symptoms arose as a result of her stepfather’s involvement with drugs, rather than sexual abuse. Nonetheless, even though her explanation may have been inaccurate or incomplete, she appeared to benefit immediately from reporting a possible cause of her dyspnea.
Further, gaining of this insight or the process involved in its acquisition may have been associated with a sufficient increase in confidence that allowed her to disclose her abuse later in the week.

It must be emphasized that the patients described in this report comprise only a subset of patients who reported dyspnea. The reported patients mostly had normal lung function and did not have diagnosed organic illnesses. Therefore, their presentation was consistent with a somatoform disorder (American Psychiatric Association, 1994). Some of the patients in this report may have suffered from conversion disorder, as their unintentional clinically significant symptoms were preceded by stressors (American Psychiatric Association, 1994). Conversion is thought to allow a somatic symptom to represent a symbolic resolution of an unconscious psychological conflict, reduce anxiety, and serves to keep conflict out of conscious awareness (American Psychiatric Association, 1994). For example, once Jane dealt with her psychological conflict by deciding to trust herself, she no longer required a symbolic resolution, and her symptom resolved. The patients who were exposed to traumatic events (including the loss of grandparents, parental divorce, exposure to a large house fire, near-drowning, and episodes of severe asthma) may have developed dyspnea as part of a Posttraumatic Stress Disorder (American Psychiatric Association, 1994). Patients with possible conversion and posttraumatic stress disorders might benefit from referral to health care providers who specialize in the treatment of these conditions.

The patients were not diagnosed as having a factitious disorder or malingering because their symptoms were judged not to be fabricated, feigned, or intentionally produced (American Psychiatric Association, 1994).

Dyspnea resolved rapidly with the use of self-hypnosis but without use of AWP in at least 16 of 22 patients in this report, as well as in 13 of 16 patients with normal lung function in a previous report (Anbar, 2001a). Thus, it appears that gaining a possible insight into the cause of dyspnea is not critical in achieving its resolution in many patients. Self-hypnosis may be very helpful in this setting because of its effectiveness in decreasing anxiety. Thereafter, a calmer response to a situation allows patients to decrease their perceived stress, which is a potential primary cause of the dyspnea.

The improvement of dyspnea in the two patients with asthma emphasizes that the symptoms of some patients with organic respiratory disease can improve with hypnosis (Anbar, 2003). However, dyspnea arising in patients with organic respiratory disease may be attributable to physiologic factors as well as psychological factors of a different nature than in patients without organic disease. Therefore, it is not surprising that in a previous report, use of self-hypnosis achieved resolution of dyspnea in only 2 of 20 patients who had abnormal pulmonary function (Anbar, 2002).

All of the patients in this report indicated an interest in gaining insight into their symptoms. Thus, their observations may not be representative of the psychological causes of dyspnea in patients who are not interested in gaining insight. One of the reasons many patients may have been disinterested in using hypnosis for insight was that their dyspnea had resolved prior to their being given an opportunity to use AWP.

This report examined potential psychological triggers of dyspnea in patients between 11 and 16 years of age. Thus, its findings and methods may be only partially applicable to younger children or an adult population. For example, young children may be unable to develop useful insights, and it might be expected that as children progress through the stages of cognitive development that the nature of their insights
will change. Additionally, adolescents may be more adept at using AWP than members of other age groups because of adolescents’ high degree of exposure to computers at home and at school.

AWP may promote insight through development of communication with an ego state (Watkins, 1993). Other ways of promoting patient insight include imagining a conversation with an inner adviser (Anbar, 2000; Bresler, 1990), and analytic psychotherapy that helps patients develop insights into the meaning of their symptoms through a long-term interaction with a therapist (Kolb, Cooper, & Fishman, 1995).

In conclusion, dyspnea may provide patients with a way of expressing their reactions to perceived or anticipated stress. Thus, stress reduction interventions may prove very helpful in resolving this symptom. However, in some cases gaining an insight into the potential cause of the dyspnea may increase the effectiveness of therapy.

References


