

Article 15

Article 4 (for Quiz 4)

Successful Interdisciplinary Intervention with an Initially Treatment-Resistant Social Phobic

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ABSTRACT. Despite very successful treatments for social phobia, with many studies reporting as many as 75% of social phobics making clinically significant gains with 3 months of treatment or less, some social phobics fail to respond to treatment. This case presents a woman with social phobia who received several trials of treatment for severe public-speaking fears but failed to improve, as demonstrated by persistent reports of fear and avoidance equal to those before treatment. With the assistance of a speech language pathologist, this client received combined therapy that included cognitive-behavioral therapy to treat her public-speaking fear and avoidance and voice therapy to treat excessive muscle contractions in the respiratory and phonatory systems. Overall, the combined treatment was successful, with the client's self-reported levels of fear and avoidance of public speaking decreasing dramatically. Specific improvements during voice therapy and implications for the treatment of social phobia are also discussed.

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Although once termed the *neglected anxiety disorder* (Liebowitz, Gorman, Fyer, & Klein, 1985), social phobia has received considerable attention from researchers in the last decade. A substantial portion of that research effort has addressed the development and evaluation of both psychosocial and pharmacological interventions (see Heimberg & Juster, 1995, and Potts & Davidson, 1995, for their respective reviews). It appears that social phobia is quite treatable, with many studies reporting as many as 75% of social phobics making clinically significant gains with 3 months of treatment or less. In fact, this success suggests that it is time to more closely examine the individuals with social phobia who fail to progress in the standard treatments and to begin to develop interventions that may be more effective for this subgroup.

Fear of negative evaluation by others is the hallmark of social phobia (*DSM-IV*; American Psychiatric Association, 1994), and many social phobics are particularly fearful that signs of their anxiety (e.g., voice or hand tremors, blushing) will be visible to others (McEwan & Devins, 1983; Warner, Hope, & Herbert, 1995). In typical cognitive-behavioral interventions for

social phobia, fear of others seeing one's anxiety symptoms is addressed both directly and indirectly. For example, the fear may be addressed directly through cognitive restructuring based on a series of questions:

- Do you know for certain the symptom is visible to others?
- If the symptom is visible, will others necessarily draw a negative conclusion about you?
- Even if the symptom is visible and others evaluate you negatively because of it, how bad is that?

As an alternate approach, the fear of a visible anxiety symptom may be addressed only indirectly on the assumption that reduction of anxiety will make it less likely that the symptom occurs and, consequently, less likely that the fear of the visible symptom will be evoked. However, as will be seen in the case presented below, some social phobics fail to respond to these types of interventions and continue to be excessively concerned about a particular anxiety symptom. In such cases, it may be appropriate to attempt to directly relieve the symptom.

Recent advances in computer technology have presented sophisticated methods for treating voice disorders (Boone & McFarlane, 1988). For voice disorders that involve excessive muscle contraction in the respiratory and phonatory systems, a problem often exacerbated by extreme anxiety, combined management by a psychologist and a speech-language pathologist may be indicated. In one recent study (Sime & Healey, 1993), remediation of a voice disorder involving phonatory systems was attributed to collaborative treatment by a voice specialist and a counseling psychologist using a combination of voice therapy, cognitive-behavioral therapy, and biofeedback training.

The case below presents a woman with social phobia who received several trials of treatment for severe public-speaking fears but who failed to improve. After completing a group-treatment program, she reported levels of fear and avoidance equal to those before treatment. The client reported embarrassment about her voice quality when she was speaking to an audience. As the client became anxious, the combination of vocal tremors, dysphonia, and occasional spasmodic closure of her vocal folds caused noticeable impairment in her

voice fluency, resulting in anxious preoccupation and subsequent avoidance of public-speaking situations.

Method

Participant

70 The participant was a 51-year-old White woman who first sought treatment in response to public-service announcements about free treatment for social phobia in exchange for participation in psychopathology research. She was interviewed using the Anxiety Disorders Interview Schedule-Revised (ADIS-R) (DiNardo & Barlow, 1988) and met *DSM-III-R* criteria for social phobia, generalized type. (A post hoc review of her case indicates that she would meet the same diagnosis under *DSM-IV* criteria.) The social phobia was judged 80 to be very severe based on a rating of 7 on the 0 to 8 clinician's severity rating included in the ADIS-R. The participant also met criteria for a secondary diagnosis of posttraumatic stress disorder (in partial remission).

85 The client reported a physically and psychologically abusive childhood and a long history of psychological distress. She appeared to have made significant progress in various psychotherapies as well as antidepressant and anxiolytic medication trials over two decades. At the time of the initial psychological assessment, she was generally functioning as well as she had during her adult life. She indicated that social phobia was her primary concern because it prevented her from completing her graduate degree and interfered with her ability to speak in public, which was part of her freelance occupation. Her primary goal in treatment was to reduce her fear of speaking in front of people.

Assessment Measures

As part of the research-assessment battery, the client completed the Social Phobia and Anxiety Inventory (SPAI) (Turner, Beidel, Dancu, & Stanley, 1989). The SPAI uses a Likert-scale (1-7) format that includes 45 items, 32 comprising a Social-Phobia subscale and 13 comprising an Agoraphobia subscale. Turner et al. recommend using a difference score (Social-Phobia subscale score minus the Agoraphobia subscale score) when assessing social phobia. Although there is no proposed cutoff score to identify presence or absence of social phobia, previous research (Beidel, Turner, & Cooley, 1993) found a mean SPAI difference score of 103.3 (*SD* = 28.08) for social phobics.

110 With the assistance of a cognitive-behavioral clinician, the client developed a fear and avoidance hierarchy that included 10 interpersonal situations rank ordered in terms of anxiety-evoking potential. The 10 situations were rated on 0 to 100 scales for both fear and behavioral avoidance, with higher numbers indicating greater distress or avoidance. Traditionally, clients do not tend to report 10 distinct functionally unrelated situations; rather, they report variations on two or three situations (Hope, 1993). Thus, the client's most severe fear, formal speaking in front of several people, was used to index her progress, and only fear and

avoidance ratings from that situation will be reported here.

125 *Voice assessment.* A voice evaluation was performed by the second author, a speech-language pathologist and professor who specializes in the evaluation and treatment of voice disorders at the University of Nebraska at Lincoln. During the initial evaluation, the client was perceived to have a slight degree of vocal tremor, tense phonations, and breathiness, which resulted in reduced vocal intensity. Muscle tension was present by direct observation and palpation. The vocal symptoms occurred consistently throughout the evaluation during conversation and oral reading. The client was diagnosed as having a muscle tension dysphonia (MTD).

135 MTD is a common clinical voice syndrome among voice-disordered individuals. Most MTD clients have problems coping with stress. Vocal symptoms of MTD clients include excessive laryngeal tension and insufficient control of the breathstream for phonation. The client stated that she felt a great deal of muscle tension in her face and neck area. She also reported that talking about her voice problem seemed to make the facial and neck tension worse. The client reported having an occasional choking feeling (an indirect evidence of extreme laryngeal tension) during the evaluation. Toward the end of the evaluation session, the client indicated that the focus and discussion of her speaking difficulties brought about the same levels of muscle tension and voicing problems that she experienced on a daily basis.

Psychological Interventions

155 *Cognitive-behavioral group therapy.* The client participated in 12 weeks of cognitive-behavioral group therapy (CBGT) for social phobia that included cognitive restructuring, in-session exposure to feared situations, and homework for *in vivo* exposure (Heimberg, 1991; Hope, 1993). Consistent with CBGT protocol (Heimberg, 1991), the client's CBGT group included six other clients and two experienced therapists (the third author and an advanced doctoral student). The first two sessions of CBGT consist of establishing the group rules, orienting group members to the rationale behind the intervention, and initial training in cognitive restructuring (e.g., identification, analysis, and disputation of irrational/dysfunctional thoughts). Behavioral exposure to feared situations begins in Session 3 of CBGT. Exposures involve role playing of feared situations in the context of the group, using therapists and other group members as role-play partners. Role plays proceed in a graduated fashion, with progressively more anxiety-provoking situations enacted as the group progresses from Session 3 to 12. Cognitive restructuring is integrated around role-played exposure. Early in treatment, homework assignments focus on cognitive-restructuring skills. Later assignments require group members to enter previously feared or avoided situa-

tions in their daily lives while using cognitive skills to help cope with their anxiety.

180 The client attended all 12 weeks of CBGT and completed homework as requested. By the end of the intervention, she completed five in-session exposures ranging from talking about herself to the group while seated to formal presentations similar to the ones that
185 she avoided in graduate school. However, as noted below, the client failed to progress with her treatment goals in CBGT, so she was referred to the in-house clinic for further treatment.

Nondirective psychotherapy. Following CBGT, the client attended 22 sessions of nondirective individual psychotherapy (10 sessions with the doctoral student who had served as one of her CBGT therapists, then 12 sessions with the first author). Although both therapists occasionally referred back to some of the cognitive-restructuring skills gained in the group, most sessions consisted primarily of supportive psychotherapy regarding a range of topics (e.g., issues related to family of origin and spouse).
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Individual cognitive-behavioral therapy (CBT). After approximately 22 sessions of nondirective psychotherapy, the client indicated that she would like to begin focusing on her public-speaking fears, as she believed that unless she would be able to present her master's research to a large audience—a requirement of her program—she would be unable to complete her degree. During the next 8 weeks, the client received CBT closely based on CBGT with the first author and supervised by the third author. The client completed six exposures involving public-speaking scenarios. Three
205 of these exposures involved an audience of at least eight people.
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Although the client reported slight reductions in her anxiety during in-session exposures, it was readily apparent to both her and the therapist that individual CBT was no more effective than CBGT had been, despite the highly intensive treatment. She consistently reported that her main concern when addressing an audience was that her voice would shake while she spoke and that she would not be able to breathe properly. She
215 felt convinced that the audience would observe these symptoms and notice that she was "ready to fall apart." Because the client's symptoms actually were noticeable to observers, it was difficult to negate her concerns that these symptoms would have some degree of impact on audience perceptions. According to the client, it was her belief that until she learned to speak without vocal tremors, she would not be able to successfully give a public presentation. Given these circumstances, the first author contacted the second author, who agreed to meet with the client to assess
220 whether voice tremors and breathing difficulties may be related to a particular voice disorder potentially impeding improvement.
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Voice Therapy

235 After the voice assessment described above, the client participated in voice therapy with the second author for 21 sessions over a 5-month period. Voice therapy focused directly on normal voice physiology by having the client use increased respiratory support for phonation as well as having her initiate and sustain smooth,
240 relaxed phonations and reductions in neck and facial tension. Implementation of these goals was facilitated through the use of Computer-Aided Fluency Establishment Training (CAFET). The CAFET system (Goebel, 1986) runs on an Apple IIe computer and provides integration and visual feedback of various respiratory and phonatory behaviors. Respiratory and phonatory performance related to inadequate breathing patterns for speech and ease of voicing onsets are monitored by devices that the client wears over clothing. Movements of the abdominal musculature and voicing patterns are transduced and shown on the computer screen. Errors in respiratory and phonatory patterns based on a specified criterion-based performance level are also displayed on the screen for client feedback. Clients are taught target speech skills of inhalation/exhalation patterns without phonation, easy onsets of phonation, and continuous phonation patterns, with accompanying gradual increases in vocal intensity. The majority of each treatment session was spent on the CAFET system. Most of the client's initial breathing patterns were associated with tense, irregular inhalation/exhalation patterns that could easily be seen with the CAFET system. Treatment also focused on eliciting easy breathing and voicing patterns in linguistically simple and emotionally neutral speech contexts. As success was achieved, the clinician gradually increased the length and linguistic complexity of utterances produced by the client. Topics that increased the client's emotional levels were gradually introduced into each session.
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During this 20-week period of voice therapy, the client concurrently participated in additional individual CBT that included approximately nine exposures to feared public-speaking situations.

Procedure

275 The client participated in the following interventions in the order listed: CBGT (12 sessions), nondirective psychotherapy (22 sessions), individual CBT (8 sessions), and individual CBT (12 sessions) combined with voice therapy (21 sessions). Because this case was not treated in the context of a research protocol, order of the treatments was not randomized. Rather, the case reflects treatment as it occurs in clinical practice in which the standard, empirically validated intervention is first used. Then, if the client fails to progress, other treatments are employed based on the changing conceptualization of the problem.
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Results of therapy were evaluated on the basis of (a) the client's subjective ratings of fear and avoidance

of public speaking, which were completed at six assessment points: before CBGT, between CBGT and nondirective psychotherapy, before, during, and after the combined individual CBT and voice therapy, and at a 7-month follow-up; (b) the client's SPAI administered prior to CBGT, just after combined treatment began, then again 7 months after treatment was completed; and (c) the client's subjective report of degree of vocal strain as well as a record of respiratory and phonatory signals (e.g., CAFET) evaluated on a session-by-session basis during voice therapy.

Results

As illustrated in Figure 1, the client's pre-CBGT hierarchy ratings for fear and avoidance related to presenting in front of a large group were 100 and 75, respectively. Following CBGT, she rated her fear at 100 (indicating no change from pretreatment) and her avoidance at 100 (indicating an increase of 25 from her pretreatment rating of 75). At the beginning of individual CBT, the client's fear and avoidance were both rated as 100. Twelve weeks into combined therapy, her ratings decreased moderately (from 100 to 85) for fear and substantially (from 100 to 50) for avoidance. Post-combined-treatment ratings taken about 1 week after voice therapy ended indicate a significant reduction in fear (from 100 to 25) and avoidance (from 100 to 25). A 7-month follow-up revealed that these posttreatment gains were maintained.

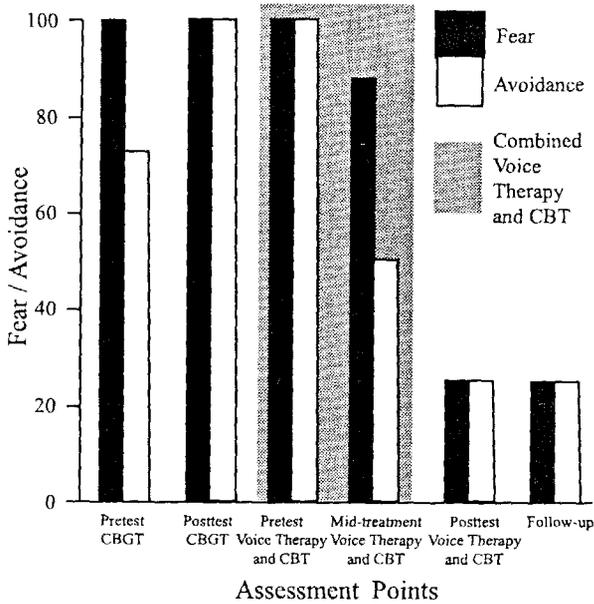


Figure 1. Fear and avoidance related to public speaking at multiple assessment points during treatment. Note: CBGT = Cognitive-behavioral group therapy, CBT = Cognitive-behavioral therapy.

The client's SPAI difference scores at pre-CBGT, pre-combined therapy, and 7-month follow-up were reported as 104, 109.7, and 53.6, respectively. SPAI difference scores prior to CBGT and again prior to the initiation of combined therapy were virtually the same,

indicating significant social anxiety; however, 7 months after the completion of combined therapy, the client's SPAI difference score decreased significantly and was within the normal range (Beidel et al., 1993).

As presented in Figure 2, results of the voice-therapy program revealed that the client gradually became more proficient in producing the target respiratory and phonatory skills. The client's management of the respiratory and phonatory target behaviors during short utterances led to success with appropriate phrase-length utterances 70% to 80% of the time compared to baseline measures. By the end of the voice-treatment program, the client was producing relaxed phonations and normal-sounding speech on a consistent basis.

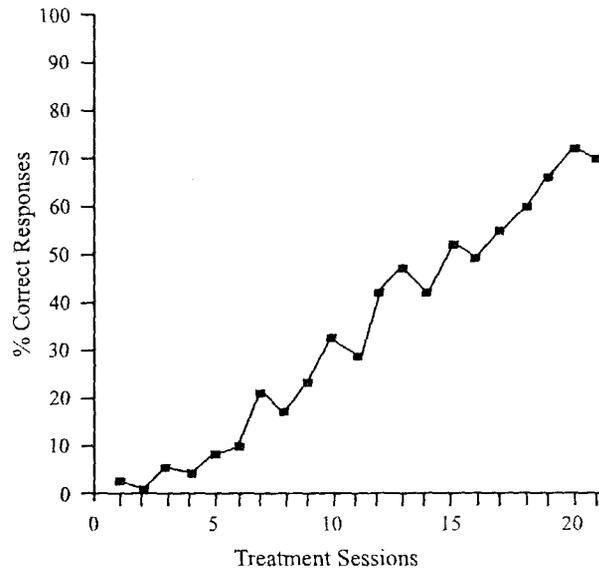


Figure 2. Percentage of correct responses for client's respiratory and phonatory target behaviors as measured by the Computer-Aided Fluency Establishment Training (CAFET) system.

Discussion

This case involved a woman with social phobia who failed to improve in the standard cognitive-behavioral interventions. Because the client reported being embarrassed about her voice when she was speaking to an audience due to vocal tremors and dysphonia, a voice specialist was contacted for consultation. Only when this client was treated by a voice specialist for these specific difficulties in combination with cognitive-behavior therapy did she make significant improvements.

Although treatment of social phobia has been demonstrated to be quite successful, some clients simply do not improve. Several factors ranging from a client's lack of motivation to possible severe comorbid disorders can often be identified as factors partially responsible for lack of improvement. However, the case described in this article presents an unanticipated treatment failure. That is, the client did not demonstrate comorbid psychopathology to the degree that it was

355 expected to interfere with treatment and did not suffer
 360 from a lack of motivation during treatment. In fact, this
 365 client attended every session and adhered strictly to the
 370 treatment protocol. An important finding in this study
 375 that helped to illuminate potential reasons for this cli-
 380 ent's lack of improvement is that she suffered from a
 385 very real voice disorder that negatively affected her
 performance when addressing an audience. Despite
 efforts to help the client habituate to anxiety associated
 with public speaking and thus reduce vocal tremors,
 severity of this specific symptom prohibited the ac-
 complishment of this task. It was only after recognizing
 that her vocal tremors may have been exacerbated by a
 voice disorder that treatment could be adjusted to in-
 clude voice therapy.

370 With regard to the client's reported gains, she indi-
 375 cated that muscle-tension levels in the neck and face
 380 areas were significantly less than they were at the be-
 385 ginning of voice therapy. The client also stated that
 respiratory skill training for supporting phonation had a
 significant impact on her vocal quality inside and out-
 side of therapy, because focusing on breath control for
 speech allowed her to focus on her voice quality rather
 than on the anxiety that she was experiencing prior to
 treatment. During the final week of voice therapy, the
 client participated in an oral presentation related to her
 graduate work. Success with this activity prompted her
 to consider participating in an invited panel discussion.
 According to the client, she "finally felt ready to face a
 public audience." When questioned about the utility of
 the combined treatment, the client indicated that she
 felt that both components of treatment were important
 in her anxiety reduction. Without voice therapy, the
 client felt that she would have been unable to learn
 exercises to treat the problem. Additionally, without
 the CBT, she felt that she would have never initiated
 the kinds of interactions that enabled her to overcome
 her anxiety. That is, by recognizing that she had more
 control over her voice tremors and breathing, she was
 able to successfully habituate to her anxiety over public
 speaking.

395 Considering that MTD is a common clinical voice
 400 syndrome and that many MTD clients have difficulty
 coping with stress, it seems likely that therapists treat-
 405 ing social phobia will encounter individuals who may
 be affected by MTD. This is particularly true for clients
 with fears unique to public speaking. This case study
 presents the first known collaborative treatment of a
 social phobic using cognitive-behavior therapy com-
 bined with voice therapy. Because this case was not
 planned as a research protocol, much of these data re-
 flect different treatment strategies that were employed
 in an attempt to alleviate the client's public-speaking
 fears. Consequently, inferences that can be drawn from
 these results are obviously limited, as threats to internal
 and external validity were not controlled. Without in-
 dependent corroboration, a single client's subjective
 reports should not be accepted uncritically (Kazdin,

1992). Because CBT and voice therapy were used con-
 currently, it is difficult to identify those elements of the
 treatment(s) responsible for the client's improvement.
 415 However, because CBT closely followed the protocol
 for CBGT and the client failed to respond to CBGT, it
 seems likely that voice therapy was effective. Whether
 voice therapy alone would have had the same results
 remains a question for future research. Although only
 420 self-report measures were used to assess the client
 throughout treatment, it should be noted that both stan-
 dardized and idiographic observations were consistent
 with these self-reports. Despite these inherent short-
 comings, significant decreases in self-reported levels of
 425 fear and avoidance, changes in SPAI difference scores
 from pretreatment to follow-up, and improvements in
 voice quality as demonstrated by the CAFET system
 during combined therapy are encouraging. Future re-
 search should focus on conducting a controlled study
 430 of individuals who are diagnosed with social phobia
 and MTD, offering combined therapy. Specifically,
 systematic examination of each of the treatment mo-
 dalities individually as well as combined will be im-
 portant.

435 The unique clinical problem presented in this case
 study provides an illustration of how collaboration
 between professionals in very different, yet overlap-
 ping, professions can be quite beneficial for a client.

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