The moderated effects of video feedback for social anxiety disorder


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A B S T R A C T

Despite initially positive results, video feedback for social anxiety has never been shown to reduce social anxiety in a controlled experiment with diagnosed participants, and only once with undiagnosed participants. Previous studies arguably did not detect such an effect because of limited assessment of anxiety and potential moderators. We tested video feedback with cognitive preparation among treatment-seeking participants with a primary diagnosis of social anxiety disorder. In Session 1, participants gave an extemporaneous speech and either received the intervention or not. In Session 2, 6–14 days later, participants gave a second extemporaneous speech. The intervention improved self-perception of performance, particularly for those participants with the most unrealistically negative impressions of their performance (i.e., high self-observer discrepancy). In addition, the intervention reduced anticipatory anxiety for the second speech for participants with high self-observer discrepancy. These findings extend previous results regarding video feedback and suggest that the intervention may be useful for people with social anxiety disorder and higher self-observer discrepancies for a specific task.

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1. Introduction

Higher social anxiety is associated with interpersonal behaviors that are generally maladaptive and detectable in a variety of ways (e.g., Creed & Funder, 1998; Voncken, Alden, Bögels, & Roelofs, 2008; Walters & Hope, 1998). People who have higher social anxiety are clearly more likely to display maladaptive interpersonal behaviors, yet it is also clear that they generally believe they come across worse than observers believe they do (Heimberg, Hope, Dodge, & Becker, 1990; Rapee & Lim, 1992; Stopa & Clark, 1993). Cognitive behavioral models of social anxiety disorder (Clark & Wells, 1995; Rapee & Heimberg, 1997) suggest that this discrepancy between perception of performance and actual performance helps to maintain social anxiety. Video feedback (VF) has therefore been suggested as a method to enhance the effects of exposure through having the person with social anxiety disorder view a videotape of his or her social performance (e.g., Clark & Wells, 1995).

Authors recommending the use of VF typically suggest preparing the recipient of the feedback, most notably with cognitive preparation (CP; Harvey, Clark, Ehlers, & Rapee, 2000). CP was designed to accomplish two goals: (a) help the participant clarify what he or she expected to see on the videotape (through a semi-structured interview using self-ratings of specific behaviors), maximizing the potential for participants to observe discrepancies between their beliefs and their videotaped performances and (b) encourage participants to watch the videotape in an objective fashion and avoid re-activating memories of the event that would interfere with attending to the videotape.

Promising results have been reported for cognitive therapy for social anxiety disorder, which contains VF with CP among many elements (Clark et al., 2003; Clark et al., 2006; McManus et al., 2009; although see Aderka, 2009). In contrast, controlled studies of VF and CP have been somewhat less promising. VF alone is not necessarily sufficient to improve self-perception of performance in people who are socially anxious (compare Rapee & Hayman, 1996 with Rodebaugh & Chambless, 2002), but CP increases the effects of VF, producing a robust change in self-perception of performance (Harvey et al., 2000; Kim, Lundh, & Harvey, 2002; Rodebaugh, 2004). Despite the fact that this type of preparation increases the effects of VF, Rodebaugh (2004) reported that it failed to show an effect on anxiety, confidence, or willingness to approach a sub-sequent speaking task. Similarly, Smits, Powers, Buxkamper, and Telch (2006) found that adding VF with CP to an exposure therapy for social anxiety disorder failed to confer any added benefit for anxiety-related measures over exposure alone. In contrast, a recent study investigating VF with CP for socially anxious adolescents found evidence for reduction in anticipatory anxiety over exposure alone (Parr & Cartwright-Hatton, 2009). Neither Rodebaugh’s (2004) study nor the study by Smits and colleagues was designed to assess for effects on anticipatory anxiety.

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The VF with CP literature has several gaps that might explain such inconsistent results. Parr and Cartwright-Hatton’s (2009) study may be the only controlled test of VF with CP that demonstrates reduction in anxiety because other studies failed to specifically assess anticipatory anxiety. A study that assesses both anticipatory anxiety and anxiety during speech performance would therefore be helpful. Further, only one controlled study assessed participants with social anxiety disorder (Smits et al., 2006), and participants in this study were largely recruited from a screened student sample and therefore not representative of a typical treatment-seeking sample. It would be useful to have available a test of VF with CP among treatment-seeking participants. Finally, relatively few studies have examined the possibility that VF with CP might reduce anxiety only among some individuals. Predictors of response to VF with CP would be useful to clinicians seeking to determine whether particular clients would be likely or unlikely to respond well to the intervention, which requires a nontrivial amount of time to conduct.

The most promising candidate for a predictor of response to VF with CP appears to be self-observer discrepancy, defined as the degree to which observer ratings fail to predict self-ratings. Participants with higher self-observer discrepancies differ more strongly from observer predictions when rating themselves, indicating that their beliefs about their performances are particularly distorted. Although self-observer discrepancy can occur in either direction (i.e., a person can believe he or she looks much worse or much better than observers would predict), it seems likely that participants who believe they look far worse than they actually do should benefit the most from VF with CP. In this paper, we use the term higher self-observer discrepancy to refer to these participants.

Several studies have examined the possibility that self-observer discrepancy predicts response to VF (with and without CP). Rodebaugh and Chambless (2002) found that higher self-observer discrepancy predicted response to VF alone, such that only participants with higher self-observer discrepancy showed beneficial effects for VF in a second speech task. Similarly, upon re-analyzing the data from Rapee and Hayman (1996), Rodebaugh and Rapee (2005) found that self-observer discrepancy showed similar predictive power in that dataset. Finally, in a third, independent sample, Rodebaugh (2004) found additional evidence that self-observer discrepancy predicted response. However, in each of these examinations, the only outcome variable affected was self-perception of performance. No study has demonstrated that self-observer discrepancy moderates the effects of VF on anxiety in subsequent social tasks. However, none of these studies assessed anticipatory anxiety. Further, the only controlled experiment to examine the effects of VF on participants diagnosed with social anxiety disorder did not test the moderating effects of self-observer discrepancy (Smits et al., 2006).2

Our clinical experience suggests to us that VF is a useful intervention for anxiety, at least for some participants. Our impression is that most clinicians who are aware of the technique believe it is effective for reducing anxiety. It may therefore come as a surprise that the literature is not conclusive on this issue, with only one controlled experiment offering direct support and no controlled experiment offering support in regard to reducing anxiety in participants with social anxiety disorder. To take a step in the direction of resolving this issue, we conducted a study of VF with CP in treatment-seeking participants with social anxiety disorder.

We compared VF with CP to exposure alone to maximize the power of the intervention and because there was little reason to believe that either VF or CP alone would be particularly effective. Sessions were conducted 6–14 days apart to more closely mimic the usual course of psychotherapy and allow greater generalizability to a therapy context. We also assessed anticipatory anxiety, as well as anxiety at the end of the social task, to test the possibility that the intervention might have an effect only on some aspects of the anxiety response. Finally, we tested for the moderating effects of self-observer discrepancy. Our hypotheses were that the intervention would produce changes in self-perception of performance and anticipatory anxiety (but not necessarily anxiety at the end of the speech) and that self-observer discrepancy would moderate these effects.

2. Method

2.1. Participants

All participants were seeking treatment at an urban anxiety treatment center in the northeastern United States. Participants took part in the study prior to any treatment at the center. To be included in the study, participants had to have been assigned the primary diagnosis of social anxiety disorder. Any participants showing signs of the following during initial assessments were excluded from the study: psychosis, prominent risk of self-harm, alcohol or substance abuse in the last 6 months, an organic mental disorder, or a history of bipolar I disorder. A total of 26 participants completed at least the first session of the study, and 22 of these participants also completed the second session, 10 of whom received VF and CP in Session 1 (the VF with CP group) and 12 of whom received no VF in Session 1 (the NFV group). To alleviate ethical concerns, participants in the NFV group were given the intervention after finishing their speeches in Session 2 (i.e., after all measures related to self-perception of performance and anxiety were taken for this study).3

In the full sample of 26 participants, most were male (n = 16, 61.5%). Participants reported a variety of ethnicities, including White (n = 12, 46%), Black (n = 6, 23%), Asian or Pacific Islander (n = 3, 12%), and Hispanic (n = 2, 8%); three participants (12%) reported other ethnicities. Participants had an average age of 31.50 (SD = 10.90). Most (n = 24) were judged by clinical interviewers to have the generalized subtype of social anxiety disorder. Severity of social anxiety disorder was judged to be definitely disturbing/disabling for 3 participants and markedly disturbing/disabling for 13 participants, with the remainder (10) falling between these anchors. For the 24 participants who completed the social interaction anxiety scale (see below), scores indicated moderate to severe social interaction anxiety for the sample (straightforward total: M = 41.62, SD = 12.98; original total: M = 50.58, SD = 14.71). Many participants were diagnosed by clinical interviewers with additional disorders. Data are available for the three most severe disorders (if any) that each participant was diagnosed with beyond social anxiety disorder. Participants met criteria for specific phobia (n = 10), generalized anxiety disorder (n = 3), obsessive compulsive disorder (n = 2), major depressive disorder recurrent (n = 2), and

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2 The possibility that self-observer discrepancy might predict response to VF is inherent in early reports of the effects of therapeutic use of video, which we have not reviewed for the sake of concision. The interested reader may refer to the review by Hung and Rosenthal (1978) and specific studies by Blount and Pederson (1970), Braucht (1970), and Paredes, Ludwig, Hassenfeld, and Cornelison (1969), among others.

3 Not considered in the 26 participants are two additional participants who refused to give the first speech due to anxiety and a third participant who received VF with CP with faulty audio in the first session. One of the 26 participants completed Session 2 39 days after Session 1, well outside of the range of days permitted by the design, and is thus considered a drop-out. Substantive results are identical if this participant is included in analyses.