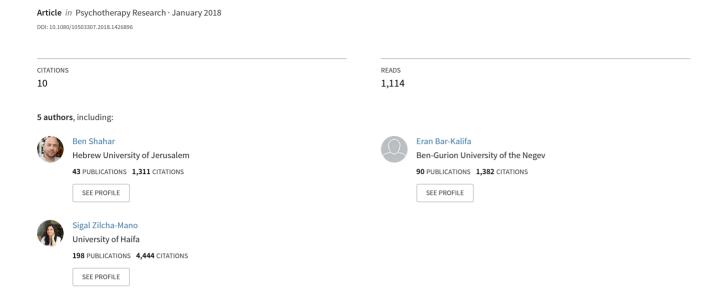
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Psychotherapy Research



ISSN: 1050-3307 (Print) 1468-4381 (Online) Journal homepage: http://www.tandfonline.com/loi/tpsr20

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To cite this article: Ann Haberman, Ben Shahar, Eran Bar-Kalifa, Sigal Zilcha-Mano & Gary M. Diamond (2018): Exploring the process of change in emotion-focused therapy for social anxiety, Psychotherapy Research, DOI: <u>10.1080/10503307.2018.1426896</u>

To link to this article: https://doi.org/10.1080/10503307.2018.1426896

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EMPIRICAL PAPER

Exploring the process of change in emotion-focused therapy for social anxiety

ANN HABERMAN¹, BEN SHAHAR², ERAN BAR-KALIFA¹, SIGAL ZILCHA-MANO³, & GARY M. DIAMOND¹

(Received 24 July 2017; revised 1 January 2018; accepted 3 January 2018)

Abstract

Objective: This study examined purported change mechanisms in emotion-focused therapy for social anxiety disorder. **Methods:** The sample included nine clients who had participated in a multiple-baseline case study trial examining the efficacy of emotion-focused therapy for social anxiety disorder (SAD). Multilevel analyses were conducted to examine the trajectories of emotions over the course of treatment, and whether primary adaptive emotions in a given session predicted levels of SAD symptoms, self-criticism, and self-reassurance over the course of the following week. **Results:** Findings showed a significant decrease in shame, and a marginally significant increase in assertive anger, over the course of treatment. Adaptive sadness/grief in a given session predicted less fear of negative evaluation over the course of the following week. Shame in a given session predicted higher levels of inadequate-self over the course of the following week. Finally, shame, and to a lesser degree assertive anger, in a given session predicted reassurance of self over the course of the following week. Neither assertive anger nor adaptive sadness/grief in a given session predicted levels of self-criticism over the course of the following week. **Conclusions:** These findings lend partial preliminary support for the therapeutic role of evoking and processing adaptive sadness/grief and assertive anger in the treatment of SAD.

Keywords: social anxiety; emotion-focused therapy; emotional processing

Clinical or methodological significance of this article: This article presents data offering preliminary support for some of the purported change mechanisms in emotion-focused therapy for social anxiety disorder (SAD). It highlights the role of eliciting and processing both assertive anger and adaptive sadness/grief when working with clients suffering from SAD. The findings have important clinical implications for both model development and for training clinicians to focus on both assertive anger and sadness/grief when working with this population.

People who suffer from social anxiety disorder (SAD) constantly fear and avoid the scrutiny of others. Their primary concern is that they may say or do something that will result in embarrassment or humiliation (American Psychiatric Association, 2013). SAD is one of the most common anxiety disorders, with an estimated lifetime prevalence rate of 12.1% (Kessler et al., 2005; Ruscio et al., 2008). It has an early onset, typically beginning in childhood or early adolescence (Chavira & Stein, 2005), is highly debilitating (Sherbourne et al., 2010), is typically chronic if

left untreated (Bruce et al., 2005; Cairney et al., 2007), and is associated with marked economic burden (Acarturk, Cuijpers, Van Straten, & De Graaf, 2009).

A number of psychotherapeutic approaches have been developed and tested for treating SAD. The treatment with the most empirical support is CBT. Cognitive—behavioral group and individual therapies have proven efficacious in a large number of studies, with medium to large effect sizes in comparison to both wait-list control groups and other

¹Department of Psychology, Ben-Gurion University, Beer-Sheva, Israel; ²The Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem, Jerusalem, Israel & ³Department of Psychology, University of Haifa, Haifa, Israel

psychological treatments, such as interpersonal and psychodynamic therapies (Acarturk et al., 2009). Despite its overall efficacy, however, not all socially anxious clients benefit from CBT. Several researchers have commented that a significant portion of clients remains symptomatic at the end of treatment, and follow-up data are scarce (Davidson et al., 2004; Hofmann & Bögels, 2006). For example, in the largest randomized control trial conducted to date, which compared CBT to psychodynamic therapy, 60% of the clients receiving CBT and 52% of those receiving psychodynamic therapy were defined as responders (i.e., showed a reduction of at least 31% in scores on the Liebowitz Social Anxiety Scale [LSAS; Liebowitz, 1987]), and thirty-six percent of clients receiving CBT and 26% of clients receiving psychodynamic therapy were defined as remitters (i.e., LSAS scores below 31) (Leichsenring et al., 2013). In a follow-up study conducted 2 years posttreatment, response rates for both treatments increased to approximately 70% (i.e., 30% remained non-responders), with remission rates reaching nearly 40% for both conditions (Leichsenring et al., 2014). This study and others show that although a majority of clients respond to CBT, and a significant minority attain remission, there is still room for improvement.

More recently, efforts have been made to adapt and test emotion-focused therapy (EFT) for SAD. EFT (Greenberg, 2011) integrates person-centered relational principles, such as empathy, congruency, and unconditional positive regard (Rogers, 1975), with more directive experiential interventions, and views emotions as a fundamental agent of change. To date, two studies have explored the efficacy of EFT for SAD. The first was a multiple-baseline case study design in which 12 clients suffering from SAD received up to 28 sessions of EFT (Shahar, Bar-Kalifa, & Alon, 2017). Clients were randomized to wait 4, 8, or 12 weeks between intake and the beginning of therapy. Results showed that of the 11 clients who completed therapy, 7 no longer met criteria for SAD at posttreatment based on the MINI International Diagnostic Interview (Sheehan et al., 1998). Multilevel analysis showed a linear reduction of social anxiety symptoms and self-criticism during the active therapy phase, with gains maintained over a 12-month follow-up period. Furthermore, most clients showed reliable changes and clinically significant changes on social anxiety symptoms based on both the Social Phobia Inventory (SPIN; Connor et al., 2000) and on the clinician-administered LSAS. In the second study, 53 socially anxious clients received up to 20 sessions of either EFT or person-centered therapy (PCT; Elliott, 2013; Elliott, Rodgers, & Stephen, 2014). Results showed

that both EFT and PCT had large pre-post effect sizes (1.75 and 1.01, respectively), based on a measure of social anxiety symptoms (the SPIN, Connor et al., 2000). Overall, these effects are comparable to those observed in most CBT for SAD trials.

The purpose of this study was to examine the purported change processes in EFT for SAD. According to EFT theory, the anxiety experienced by individuals with SAD is a secondary response, stemming from underlying shame. The theory suggests that traumatic events experienced earlier in life, including repeated or severe criticism or being bullied, are internalized into a shame-based emotional scheme that is easily triggered in new social situations (Elliott, 2013; Elliott & Shahar, 2017; Shahar, 2014). The anticipation of future shame then leads to anxiety and avoidance (Gilbert & Andrews, 1998), which in turn prevent these individuals from properly working through their underlying shame, so that their anxiety response is reinforced. Change occurs when individuals, instead of avoiding their shame, access and fully experience their shame. Once shame is evoked, it can be transformed by recruiting and evoking previously avoided assertive anger, adaptive sadness/grief associated with the loss of connections, and self-compassion (Elliott & Shahar, 2017; Shahar, 2014). In order to facilitate this process, EFT therapists use a variety of interventions including validating empathic responses, focusing, and gestalt-based techniques, such as two-chair for self-criticism and empty-chair dialogs for unresolved attachment injuries.

According to EFT theory, assertive anger, adaptive sadness/grief associated with loss, and self-compassion serve to transform shame, each in its own way. Assertive anger is a natural and adaptive response to being wronged, injured, or humiliated. It is an empowering expression of self, which guides the individual to express important self-enhancing needs, as well as set healthy boundaries (Pascual-Leone & Greenberg, 2005). As clients suffering from SAD express assertive anger, they feel stronger and less inferior. Their feelings of shame decrease, and they feel more positive about themselves. Importantly, assertive anger is different from what has been described as "rejecting anger": a reactive emotional state aimed at relieving oneself of an aversive feeling by accusing or blaming the other (Pascual-Leone & Greenberg, 2005).

Like assertive anger, adaptive sadness/grief can also have a transformative effect on shame. Adaptive sadness arises as individuals begin to access and grieve the hurt associated with having been criticized and humiliated in the past (Pascual-Leone & Greenberg, 2005). This sadness/grief assists individuals in

recognizing and fully coming into contact with the damage that has been done to them. The focus becomes more on what they have lost or, perhaps, never had, and what they long for. Rather than negatively evaluating themselves and feeling ashamed, adaptive sadness/grief leads individuals to empathize with themselves, and work through and make new meaning from painful experiences. Usually, socially anxious clients grieve the loss of their ability to be fully present in social situations, the loss of their ability to form and sustain meaningful connections, and the loss of their ability to achieve important goals due to avoidance. Adaptive sadness/grief is different from maladaptive sadness or "global distress" as defined by Pascual-Leone and Greenberg (2005), which is a state lacking clear direction and agency, and where levels of arousal are high, but specificity of meaning is low.

Lastly, self-compassion, or what has been defined as tenderness or caring turned inward toward the self (Pascual-Leone & Greenberg, 2005), helps the individual care for the injured or wounded parts of themselves. Self-compassion involves acknowledging the positive qualities and/or resources one possesses (Gilbert & Procter, 2006). Such compassion and caretaking are the opposite of the brutal self-criticism and self-shaming experienced by individuals suffering from SAD (Cox, Fleet, & Stein, 2004).

Assertive anger, adaptive sadness/grief and selfcompassion are all primary emotions or core, direct reactions to an emotion-arousing stimulus. Once assertive anger, adaptive sadness/grief and self-compassion are evoked, a transformative process is hypothesized to occur. These adaptive emotions strengthen the self, connect the individual with important needs (e.g., need for assertion of the self, need for establishing meaningful and lasting relationships, need for the capacity to be more present and less anxious in social situations) and, thus, reduce feelings of worthlessness and inferiority associated with shame.

Results from previous psychotherapy studies support the potentially transformative role of assertive anger, adaptive sadness/grief and self-compassion. For example, Pascual-Leone and Greenberg (2007) used the Classification of Affective-Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) to code emotions over the course of therapy in a sample of 34 clients suffering primarily from mood disorders (58.9%) and anxiety disorders (17.6%) and who received experiential therapy (32 received EFT and two received client-centered therapy). Results revealed that, compared to clients with poor withinsession effects (such as events in which clients do not make new meaning), clients with good withinsession effects (i.e., events that ended in reduced

distress and increased meaning making) expressed more existential needs, self-compassion, assertive anger, and adaptive sadness/grief. The quality of within-session effects was positively related to overall treatment outcome. In another study, Kramer, Pascual-Leone, Despland, and de Roten (2015) used the CAMS to code emotions during short-term dynamic psychotherapy for 32 clients with adjustment and mood problems. They found that sessions from good outcome cases had a higher frequency of assertive anger, adaptive sadness/grief and self-compassion compared with sessions from poor outcome cases. To date, however, no studies have specifically examined the role of assertive anger, adaptive sadness/grief and self-compassion in EFT for SAD.

The purpose of this study was to examine whether clients' emotions changed over the course of time in EFT for SAD, and whether the arousal of specific primary adaptive emotions (e.g., assertive anger, adaptive sadness/grief and self-compassion) was related to subsequent levels of social anxiety symptoms, self-criticism and self-reassurance. In accordance with EFT's theory of SAD, we predicted that (i) over the course of the treatment, shame would decrease as assertive anger, adaptive sadness/grief and self-compassion increased; and (ii) the more that assertive anger, adaptive sadness/grief and self-compassion were present during a given session, the less clients would report social anxiety symptoms and self-criticism, and the more they would report self-reassurance (a construct akin to self-soothing/compassion), over the course of the following week. This is the first study to examine purported change processes in EFT for SAD. Understanding the role specific adaptive emotions play in reducing shame, avoidance, and other social anxiety symptoms can not only help to better understand what fuels social anxiety but also improve treatment for it.

Method

Participants

Clients were nine adults treated as part of a randomized multiple-baseline trial of EFT for SAD (Shahar et al., 2017). In order to be included in the original outcome study, clients needed: (i) A primary diagnosis of SAD as assessed using the sixth version of the Mini International Neuropsychiatric Interview (MINI; Lecrubier et al., 1997); (ii) a score of 28 or more on the SPIN (Connor et al., 2000); (iii) to be between the ages 18-65; and (iv) and to be willing to participate in the study.

Clients were excluded if they: (i) were at imminent risk for suicide, self-harm, or other phenomenon suggesting that they may need immediate or a

higher level of care; (ii) suffered from current substance dependence; (iii) evidenced a history of, or current, psychotic disorders; (iv) reported a history of, or current, bipolar disorder; or (v) were currently receiving another form of psychological treatment. Use of medication was allowed if the client had been taking the medication for at least 3 months prior to recruitment into the study. Of the nine clients, three had comorbid generalized anxiety disorder, three had comorbid panic disorder and two had comorbid major depressive disorder. Three of the clients were taking antidepressant medication, with one of these three also using benzodiazepines.

After agreeing to participate, clients signed the necessary consent form. Treatment took place in a college located in the center of Israel. For the current analysis, we chose to include only clients with a minimum of at least five videotaped sessions containing chair work (e.g., two-chair work for self-criticism or empty-chair work for unfinished business) because such sessions usually involve more intense emotional processing work. Therefore, while the total sample in the original outcome study (Shahar et al., 2017) included 12 clients, 3 were excluded from this current study because they did not have a sufficient number of sessions containing chair work.

Therapy

EFT is a brief, empirically supported treatment for depression (Ellison, Greenberg, Goldman, & Angus, 2009; Goldman, Greenberg, & Angus, 2006; Greenberg & Watson, 1998; Watson, Gordon, Stermac, Kalogerakos, & Steckley, 2003) that has also shown promising effects in treating symptoms resulting from severe and repeated childhood abuse (Paivio & Nieuwenhuis, 2001; Paivio, Jarry, Chagigiorgis, Hall, & Ralston, 2010). More recently, it has shown promising results with anxiety disorders, such as social anxiety (Elliott, 2013; Shahar et al., 2017) and generalized anxiety disorder (Timulak et al., 2017). EFT is an integrative treatment approach that combines Rogerian relational attitudes with directive evocative interventions designed to deepen affective experiences and transform maladaptive emotion schemes that stand at the core of clients' difficulties. It is a marker-guided approach, meaning that specific client problems are markers for using specific therapeutic interventions. For example, when clients are self-critical, it calls for using a two-chair dialog intervention designed to enact the critical messages and the resulting affective responses (Shahar et al., 2012). When clients experience unresolved painful feelings toward an attachment figure or toward a bullying peer, it calls for using an imaginal dialog (empty-chair work for unfinished business) with the injurer in order to resolve these feelings. The primary goals of EFT are to help clients increase emotional awareness (e.g., symbolize bodily felt emotions in words), better regulate their emotions, make sense of and create meaning from their emotional experiences, and transform maladaptive emotions (such as shame) by activating them and exposing them to adaptive emotions (such as assertive anger, adaptive sadness/grief, and self-soothing). For a comprehensive description of the application of EFT for SAD, see Shahar (2014) and Elliott and Shahar (2017).

Clients received 24–28 individual weekly sessions of EFT of 50 minutes in duration (mean = 24.6, SD = 5.2). On average, 12.44 sessions from each client included empty-chair dialog, two-chair dialog or both. Sessions including chair work were equally distributed across the course of therapy, typically beginning by the 4th session and ending by the 25th session. When a chair dialog took place, it normally lasted for the majority of the session.

Therapists

Two therapists, both PhD-level clinical psychologists, provided the therapy. Both had extensive experience in EFT and were approved EFT trainers. One of the therapists is the second author of this paper. It is important to note, however, that this author was not involved in any of the data collection, or analyses of the data, for this study.

Measures

Emotions were measured using the CAMS (Pascual-Leone & Greenberg, 2005). The CAMS is an observational measure used to rate the presence of discrete emotion states. The coding system is designed to identify emotions that occur in-session and allows the investigator to track the sequence in which emotions appear. Pascual-Leone and Greenberg (2007) reported excellent reliability regarding the sequential ordering of the emotion codes (Cohen's K = .91), as well as the duration of a given emotion (r=.76). Other studies using the CAMS reported high reliability ratings as well (Cohen's K = .80 - .87) (Choi, Pos, & Magnusson, 2016; Kramer & Pascual-Leone, 2016; Kramer et al., 2015). In addition, studies using the CAMS have demonstrated its strong predictive validity (e.g., ability to discriminate between good and poor treatment outcome, capture adaptive emotion processes, etc.) (Choi et al., 2016; Kramer & Pascual-Leone, 2016; Kramer et al., 2015; Pascual-Leone & Greenberg, 2007).

For the purpose of this study, coders only rated those emotions directly related to our hypotheses: assertive anger (i.e., adaptive anger), grief/hurt (i.e., adaptive sadness), self-soothing (i.e., self-compassion) and shame. The unit of analysis for coding emotions was 30 seconds. Emotions were only coded in the context of chair work and only the dominant emotion in each 30 second segment was coded.

Social anxiety symptoms were measured using the Social Phobia Inventory (SPIN; Connor et al., 2000) and the Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983). The SPIN is a widely used and well-established self-report measure of social anxiety symptoms. It includes 17 items, each rated on a 5-point scale (0 = not at all true to 4 =extremely true). The SPIN evidences high internal (Cronbach's $\alpha = .94$), consistency test-retest reliability (r = .78 - .89) and convergent validity (r = .78 - .89)= .57 - .80) (Connor et al., 2000).

The BFNE is also a widely used and well-validated self-report measure assessing anxiety about being negatively evaluated in social situations. The BFNE consists of 12 items rated on a 5-point scale (1 = not at all characteristic of me, 5 = extremely characteristic of me). The BFNE demonstrates high internal consistency (Cronbach's $\alpha = .81-.91$), testretest reliability (r = .75) and convergent and discriminant reliability (Leary, 1983; Weeks et al., 2005).

Self-criticism was measured using the Forms of Self Criticizing/Attacking & Self-Reassurance Scale (FSCR; Gilbert, Clarke, Hempel, Mils & Irons, 2004). This 22-item scale measures the extent to which people criticize or reassure themselves when things go wrong for them. Responses are given on a 5-point Likert scale (ranging from 0 = not at all like me to 4 = extremely like me). The items can be grouped into three components: (1) inadequate-self, which focuses on a sense of personal inadequacy and can be viewed as a measure of moderate self-criticism; (2) hated-self, which measures the desire to hurt or persecute the self and can be viewed as a

Table I. Means and standard deviations for outcome variables at pre- and posttreatment.

| Outcome measure | Baseline (pretreatment) | Posttreatment |
|------------------|-------------------------|---------------|
| SPIN | 45.22 | 30.89 |
| | (12.76) | (9.48) |
| BFNE | 52.44 | 46.56 |
| | (8.09) | (7.13) |
| Inadequate-self | 23.33 | 16.33 |
| | (8.90) | (6.56) |
| Hated-self | 5.00 | 2.33 |
| | (3.94) | (2.18) |
| Self-reassurance | 17.33 | 19.33 |
| | (7.89) | (9.01) |

measure of severe self-criticism; and (3) self-reassurance, a measure which reflects self-soothing and selfcompassion. In prior research, Cronbach alphas were found to be .90 for inadequate-self and .86 for hatedself and reassured-self (Gilbert et al., 2004).

Procedure

Participants completed self-reports of social anxiety symptoms, self-criticism and self-reassurance prior to each session. Their scores reflected their levels of symptoms over the previous week (i.e., from the end of the last session until immediately prior to the current session). Emotions were measured observationally, and only in the context of chair work, since this was the central intervention for eliciting and processing emotions. All of the chair dialogs (two-chair and empty-chair) that took place during each case were identified by the first author while watching the videotaped sessions. Start and end points of each chair work dialog were marked. Four coders, naive to the hypotheses of the study, were trained to observationally code segments of chair work using the CAMS. Coders were undergraduate psychology students who received academic credit for their participation and were trained by the first author to identify assertive anger, adaptive sadness/grief, selfcompassion, and shame. Training consisted of weekly 2-hour meetings during which coders learned the CAMS manual and watched and discussed training tapes together. Training continued for a period of 3 months. Upon completion of the training, coders were assigned actual study tapes to code on a random, rotating pair basis. Each of the chair work sessions were coded by two independent coders. In instances in which the two coders did not agree, the first author served as a third rater to determine the emotion.

Results

Preliminary Results

The amount of chair work coded across all sessions of all clients was 50 hours and 38 minutes (N = 112 sessions). The average amount of chair work per client was 5 hours and 37.6 minutes (SD = 1 hr and 48.8 min). Across all sessions, there was a total of 6067 30-second segments of chair work. Among them, 3031 were coded as reflecting one of the four emotions relevant to this study. Of these, 41.6% were coded as assertive anger, 30.4% were coded as adaptive sadness/grief, 21.3% were coded as shame, and 6.7% were coded as self-compassion.

To estimate the interrater reliability of emotion coders, we calculated Cohen's kappa (Cohen, 1960). The Cohen's kappa was .73 (p < .001) for assertive anger, .72 (p < .001) for shame, and .58 (p < .001) for adaptive sadness/grief. Such kappas are considered substantial, substantial and moderate, respectively (Viera & Garrett, 2005). The Cohen's kappa for self-compassion was -.33 (p < .001), indicating no agreement. Consequently, self-compassion was removed from all subsequent analyses. The means and standard deviations for the dependent variables at baseline and at posttreatment appear in Table I.

Data analytic approach

The data examined were hierarchically nested, with sessions nested within clients. To account for this non-independence of the data and to prevent inflation of effects (Krull & MacKinnon, 2001; Laurenceau & Bolger, 2012), we used multilevel regression models, with level 1 as the session level and level 2 as the client level. Given the small sample size, we did not include therapists as a third level.

Changes in emotions over the course of treatment

To examine changes in emotions over the course of the treatment, we evaluated a set of three multilevel models (one for each of the three reliably coded emotions), in which the predictor was week in therapy and the outcome was time (in 30-second units) a given emotion was expressed by a client during a given session. For example, if in a given session the client expressed assertive anger in ten 30-second segments, they would be scored as having expressed 5 min of assertive anger in that session. In these models, both the intercept and week in therapy were estimated as both fixed and random effects. Specifically, the following generic mixed-level equation was modeled for each emotion:

Emotion_{tc} =
$$(\gamma_{00} + u_{0c}) + (\gamma_{10} + u_{1c}) \times \text{Week}_{tc}$$

+ e_{tc} ,

where the emotion for client c at time t was predicted by: (a) the sample's intercept (γ_{00} ; fixed effect), (b) this client's deviation from the sample's intercept (u_{0c} ; random effect); (c) the sample's slope of week in therapy (γ_{10}); (d) this client's deviation from the slope (u_{1c}); and (e) a level-1 residual term quantifying the session-level deviation from these effects.

For shame as an outcome, the effect of week in treatment was negative and significant (estimate = -0.25, SE = 0.08, p = .004), indicating that, on average, clients' expression of shame during chair work

decreased over the course of the treatment. For assertive anger as an outcome, the effect of week in treatment was positive and marginally significant (estimate = 0.29, SE = 0.16, p = .083), indicating that, on average, clients' expression of assertive anger during chair work tended to increase over the course of the treatment. Finally, for adaptive sadness/grief as an outcome, the effect of week in treatment was not significant (estimate = 0.04, SE = 0.09, p = .639), indicating that, on average, clients' expression of sadness during chair work did not change over the course of treatment. Figure 1 represents the changes in average number of minutes each emotion was expressed over the course of the therapy.

The effects of emotions on immediate outcome

In order to examine whether emotions expressed during chair work predicted immediate treatment outcome, we conducted a series of multilevel analyses. Each analysis included one of the five immediate outcome variables (i.e., SPIN, BFNE, Inadequate-Self, Hated-Self, and Self-Reassurance). Each of the three emotions coded in session t served as predictors, and clients' reports on the outcome variables reported at the beginning of session t+1served as the outcome. The predictor variables were person-mean centered, which allowed us to remove broad individual differences in the levels of the emotions when examining within-person (betweensession) effects. We also included the outcome reported at the beginning of session t as a covariate in these models, and thus the outcome could be interpreted as a change score. Only the intercept was treated as a random effect, as treating the other predictors as random effects did not improve model fit. Specifically, the following generic mixed-level equation was estimated for each outcome:

Outcome_{t+1c} =
$$(\gamma_{00} + u_{0c}) + \gamma_{10} \times \text{Anger}_{tc} + \gamma_{20}$$

 $\times \text{Sadness}_{tc} + \gamma_{30} \times \text{Shame}_{tc} + \gamma_{40}$
 $\times \text{Outcome}_{tc} + e_{tc}$

where the outcome reported by client c at the beginning of session t+1 was predicted by (a) the sample's intercept (γ_{00}); fixed effect), (b) this client's deviation from the sample's intercept (u_{0c} ; random effect); (c) the effects of the three emotions expressed during the chair work in the session at time t (γ_{10} , γ_{20} , γ_{30}); (d) the outcome reported at the beginning of the session at time t (γ_{40}); and (e) a level-1 residual term quantifying the session-level deviation from these effects (e_{tc}).

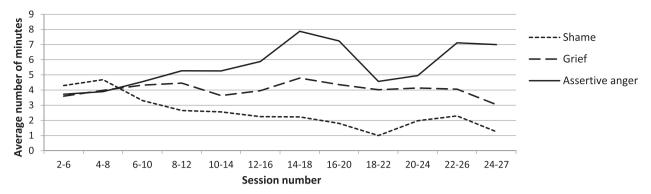


Figure 1. Observed changes in minutes of emotion expression in the course of therapy. Graph shows a smoothed representation of emotions over time, using a moving window approach (e.g., average number of minutes of each emotion in each session for sessions 2-6, followed by 4-8, etc.).

As can be seen in Table II, none of the emotions predicted levels of the SPIN reported immediately prior to the beginning of the next session, after controlling for levels of the SPIN in the previous session. However, greater expression of adaptive sadness/grief during chair work in a given session predicted a decrease in clients' reported levels of the BFNE over the course of the following week, even after controlling for prior levels of BFNE.

In addition, as can be seen in Table III, both shame (significant) and assertive anger (marginally significant) during chair work in a given session predicted an increase in self-reassurance over the course of the following week, even after controlling for previous levels of self-reassurance. Finally, greater expression of shame during chair work in a given session predicted increases in inadequate-self over the course of the following week, even after controlling for previous levels of inadequate-self. None of the emotions predicted hated-self.

Discussion

Social anxiety disorder is a common condition (Ruscio et al., 2008) with serious psychological (Sherbourne et al., 2010) and economic (Acarturk et al., 2009) implications. EFT has recently been adapted

Table II. Effect of current session emotion on subsequent social anxiety symptoms.

| | SPIN | | BFNE | | |
|-----------------|--------------|-------|-------------|-------|--|
| _ | Est. (SE) | P | Est. (SE) | Þ | |
| Intercept | 11.16 (3.27) | .005 | 8.55 (3.06) | .006 | |
| Assertive anger | -0.08(.07) | .205 | 0.00 (.05) | .946 | |
| Grief | -0.08(.09) | .383 | -0.16 (.07) | .019 | |
| Shame | 0.08 (.09) | .376 | 0.11 (.07) | .090 | |
| Lagged outcome | 0.69 (.08) | <.001 | 0.82 (.06) | <.001 | |

to treat SAD (Elliott, 2013; Elliott & Shahar, 2017; Shahar, 2014; Shahar et al., 2017). The key theoretical assumption of EFT for SAD states that anxiety associated with social situations stems from underlying shame, and that this shame-based emotional scheme needs to be accessed and then transformed by evoking primary adaptive emotions such as assertive anger, adaptive sadness/grief and self-compassion. Once underlying shame is transformed, a subsequent reduction in anxiety associated with social situations should then take place.

Findings from this study provide preliminary support for some of these purported change processes. First, as expected, shame decreased and there was a marginally significant increase of assertive anger over the course of treatment. These findings are consistent with the idea that, as clients gradually allowed themselves to be assertive, stand up for themselves, and explicitly express boundary-setting needs, their core feelings of shame subsided, supporting the notion of "changing emotion with emotion" (Pascual-Leone, in press). Indeed, the goal of twochair work in EFT is to encourage or create an environment in which clients begin to resist their internalized critical voice and instead express assertive anger and stand up for their right to be fully present in social situations and to develop close relationships. As they do that, they feel more entitled to these needs which are incompatible with feeling small, inferior, and unworthy.

Our findings are consistent with findings from a study by Kramer and Pascual-Leone (2016), in which 22 anger-prone individuals and 23 controls underwent a two-chair dialog intervention for selfcriticism. In that study, participants were asked to respond to their critical-self before and after an intervention aimed at prompting assertive anger and identifying an unmet need. The authors found that anger increased and shame decreased between the first and second response to the critic in both groups.

Table III. Effect of current session emotion on subsequent measures of self-criticism and self-reassurance.

| | Inadequate-self | | Hated-self | | Self-reassurance | |
|-----------------|-----------------|-------|-------------|-------|------------------|-------|
| | Est. (SE) | Þ | Est. (SE) | Þ | Est. (SE) | Þ |
| Intercept | 2.80 (1.18) | .020 | 1.12 (0.40) | .023 | 6.68 (1.55) | <.001 |
| Assertive anger | -0.01 (0.04) | .778 | 0.01 (0.02) | .625 | 0.04 (0.02) | .070 |
| Grief | -0.07(0.06) | .214 | 0.01 (0.03) | .696 | 0.00 (0.03) | .833 |
| Shame | 0.14 (0.05) | .015 | 0.02 (0.03) | .366 | 0.06 (0.03) | .048 |
| Lagged outcome | 0.85 (0.05) | <.001 | 0.60 (0.07) | <.001 | 0.63 (0.07) | <.001 |

Also as expected, we found that more adaptive sadness/grief expressed in a given session predicted a decrease in social anxiety over the course of the following week, as measured by a reduction in fear of negative evaluation. In the case of social anxiety, the grieving process takes place when clients express adaptive sadness/grief related to all those things that have been missed due to anxiety and avoidance (e.g., the ability to be more present in social interactions, the ability to form meaningful romantic relationships and friendships, lost career opportunities, etc.). This process ultimately allows individuals to move on with their lives, while expressing a need to overpower their fear and anxiety (Greenberg, 2006). EFT theory views adaptive sadness/grief as promoting entitlement for support and comfort from the internal critic or from attachment figures (Shahar, 2014) so that, eventually, clients' concerns with negative evaluation from others are reduced.

We also found evidence that more assertive anger in a given session predicted an increase in self-reassurance over the following week, though this effect approached significance. Self-reassurance involves generating tender, caring, affirming feelings towards oneself (Gilbert et al., 2004). This finding is consistent with the theory and goals of EFT, which state that helping clients come into contact with their self-worth, and their right to be treated fairly and set limits with others (real or internalized) who denigrate their sense of self, will transform negative perceptions and feelings toward self. Clients who expressed more assertive anger were able to produce more positive feelings towards themselves, as manifested in increased self-care and selfsupport. This finding is also in line with studies linking assertive behavior to higher self-esteem and positive feelings towards oneself (e.g., Sarkova et al., 2013), as well as with prior research testifying to the adaptive role of assertive anger in psychotherapy (Kramer et al., 2016).

Lastly, more shame in a given session was associated with higher levels of both inadequate-self and self-reassurance over the following week. The finding that shame predicted feelings of inadequateself underscores the maladaptive aspects of shame, which underlie feelings of inferiority and self-criticism (e.g., Gilbert & Andrews, 1998). It should be noted, however, that in the context of EFT for SAD, eliciting shame has an important role in the process of positive emotional transformation. More specifically, evoking shame is thought to facilitate the subsequent accessing of adaptive emotions such as assertive anger and sadness/grief. The finding that more shame in a given session also predicted increases in self-reassurance was unexpected. It may be that feeling shame led clients to reassure themselves in an effort to regulate their self-esteem. Further research should examine the potentially complex and varied effects of shame in EFT for SAD.

Contrary to our predictions, assertive anger did not predict reductions in social anxiety symptoms or selfcriticism. This non-finding is in contrast to findings from previous studies which did reveal significant correlations between the expression of assertive anger and sadness during treatment and reductions in symptoms over the course of therapy. For instance, in a study conducted by Greenberg and Malcolm (2002), 32 participants with unfinished interpersonal business received EFT, including empty-chair dialogs. Compared to the poor-outcome group, significantly more people in the good-outcome group expressed intense primary emotions, a category which included assertive anger and sadness (although the researchers did not measure them separately). In regards specifically to anger, Erwin, Heimberg, Schneier, and Liebowitz (2003) found that, among socially anxious clients who completed CBT, the tendency to suppress the expression of angry feelings at pretreatment was associated with greater posttreatment social anxiety, fear of negative evaluation and depressive symptoms.

Also in contrast to our prediction, adaptive sadness/ grief did not predict a reduction in the SPIN measure of social anxiety or in self-criticism over the course of the following week. These non-findings differ from the findings of Kramer and colleagues (2015), who did find that in the context of short-term dynamic therapy for clients with adjustment and mood

problems, adaptive grief was more common in sessions of clients with good outcomes than clients with poor outcomes, and was a strong predictor of changes in depressive symptoms by treatment's end. It is important to note, however, that previous studies examined the effects of the expression of anger and sadness within a given session on posttreatment outcome but did not examine the effects of emotion expression in a given session on the alleviation of symptoms during the course of the following week. It could be that in previous studies, assertive anger and adaptive sadness/grief produce pronounced cumulative effects, and that these effects are harder to detect when looking at them on a week-by-week basis. The finding that adaptive sadness/grief predicted a decrease in the BFNE, but not in the SPIN, may be due to the fact that these two measures tap different aspects of SAD. Whereas the SPIN taps various behavioral manifestations of SAD (e.g., party avoidance), the BFNE mainly captures more internal cognitive processes of SAD (e.g., worrying about what others think). Indeed, these two measures do not correlate strongly with each other. For example, the correlation between the two measures in our sample was r = 0.40, similar to the r = 0.43 correlation found in another study (Tavoli, Melyani, Bakhtiari, Ghaedi, & Montazeri, 2009).

Finally, and also contrary to expectations, levels of adaptive sadness/grief did not increase over time but, instead, remained stable at levels between those of assertive anger and shame (see Figure 1). We had hypothesized that adaptive sadness/grief would increase over time as clients connected to and mourned the loss and suffering that they had incurred at the hands of the internal critic, and after recognizing that they deserved better. Indeed, according to Pascual-Leone and Greenberg's (2007) step model for productive emotional processing, global distress is followed by shame or fear, which is then followed by rejecting anger, assertive anger, and then adaptive sadness/grief. One possible explanation for the lack of increase in adaptive sadness/grief is that, in this sample, for some reason, clients already had access to their sadness/grief from the start of treatment, as opposed to assertive anger, which was the least frequently expressed emotion at the start of treatment. Indeed, prior research has shown that socially anxious individuals are less accustomed to the expression of anger, avoid the expression of anger, and that assertive behavior is negatively related to self-criticism and social anxiety (Erwin et al., 2003; Trew & Alden, 2009). Our results suggest that the role of adaptive sadness/grief in productive emotional processing for people suffering from SAD needs to be further examined, possibly leading to revisions in the model of optimal processing for this population.

A number of methodological strengths of this study increase our confidence in the validity of the findings. First, the treatment was delivered by highly trained clinical psychologists with expertise in EFT. Second, we employed valid measures to identify clients' emotional experiences and to measure treatment outcome. Third, emotion coders were rigorously trained and obtained adequate interrater reliability. Nevertheless, a number of methodological limitations temper our interpretation of the findings. First, due to our modest sample size, we might not have had sufficient power to detect certain effects. Second, because the ratings for self-compassion were unreliable, we could not include them in our analyses. Third, only the dominant emotion was coded for each 30-second segment. Other, less-dominant emotions may have been present in a given segment emotions that may have had a main or interactive effect on treatment outcome. Fourth, the fact that the first author served as a third rater for instances in which the two CAMS coders did not agree might have influenced the coding process, though this was unlikely since such instances occurred in only 20% of all coded segments. Last, although baseline and posttreatment symptom ratings were assessed using both clinician reports and clients' self-reports, weekly symptom data were collected only by means of clients' self-reports.

Despite these limitations, the results from this study contribute to our understanding of the change mechanisms in EFT for SAD and shed light on the role of core emotional responses during therapy. The fact that shame decreased, and that there was a marginally significant increase of assertive anger, over the course of treatment is consistent with the notion that one emotion helps to transform the other. Moreover, the fact that adaptive sadness/grief predicted lower levels of social anxiety over the course of the following week, and that assertive anger during a given session marginally predicted higher levels of self-reassurance over the course of the following week, sheds light on the potentially unique therapeutic role of different adaptive emotions during therapy. More specifically, our findings offer preliminary support for the notion that eliciting and processing adaptive sadness/grief may serve to reduce social anxiety symptoms, while eliciting and processing assertive anger may serve to facilitate self-reassurance. This study represents an important initial step in establishing the role of adaptive emotions in session-by-session changes in EFT for SAD. Further studies with larger samples will help us to better understand the relationships between the in-session processing of specific emotions and types of therapeutic change.

Disclosure Statement

The authors report no conflicts of interest.

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